Lectures
ON
CONTRACTIONS OF THE FINGERS AND TOES; THEIR VARIETIES, PATHOLOGY, AND TREATMENT.

Delivered in the Theatre of the Royal College of Surgeons,

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LECTURE I.—(*Concluded.*)

Pathology.—The study of the character and relations of the diseased structure indicates that it is an inflammatory hyperplasia commencing in the subcutaneous tissue of the palm, involving the skin and fascia secondarily, and replacing the adipose connective tissue which normally serves as an elastic cushion for the palmar surface of the hand and fingers. It must now be considered what is the cause of the morbid process. The view of Dupuytren has already been referred to. He believed that the affection was provoked by repeated injuries of the palmar fascia by pressure and friction from implements used habitually in different mechanical callings; but the facts I have adduced in the discussion of the etiology conflict strongly with the hypothesis. It has been shown that in artisans both hands may be equally affected where only one is brought in contact with the tool, that aggravated forms of contractions may appear in persons who are not at all exposed to any such source of irritation, and, moreover, that the disease is of no more than average frequency in certain employments in which men are peculiarly and constantly liable to palmar friction. Some source of irritation, however, must be present, and it has been suggested that this is to be found in gouty deposits. In one case recently brought forward by Mr. Lockwood, uric-acid crystals were actually present in connexion with the bands; but this experience is exceptional. That the new tissue might become the seat of such a deposit in gouty subjects is more than probable, but in the majority of cases of Dupuytren's contraction seen in this country the patients are not, and have not been, subject to gout. It would, moreover, be difficult to find any condition that presents less resemblance in its course and tendencies to known manifestations of the gouty poison. The changes, indeed, are much more suggestive of chronic rheumatism than gout, but even the probability of this source of origin is not supported by observed facts. The situation of the initial lesions, and the peculiar tendency of the new growth to feed like a parasite upon the tissues in which it spreads and which it replaces, have led me to believe strongly that the active agent of destruction is a specific micro-organism, which gains access to the subcutaneous tissue through accidental lesions of the epidermis, mostly effected by the finger-nails. This would explain far better than any existing hypothesis the persistent course of the disease and its proneness to recur after the most skilfully devised operation. The almost constant limitation of the disease to the declining years of life corresponds mainly to lessened resistance in the bodily organism, and partly perhaps to senile absorption of the palmar fat cushion. The almost complete immunity of the foot is accounted for by the protection afforded by the shoes and stockings, and the impossibility of contact of the toe nails with the sole. Individual and inherited susceptibilities are exemplified here as in other complaints of known bacterial origin. Lastly, the absence of the affection in certain countries may be due either to the absence of the specific organism or to antagonistic influences developed in the constitution by racial, climatic, dietetic, and other conditions. To determine the question I have sought the experienced aid of my colleague, Mr. Shattock, in carrying out a series of bacteriological researches, which are still in progress. The results are, unfortunately, still incomplete, but they may be related so far as they go.

In a patient in whom it was decided to excise the contracted tissue in two hands the more recently affected member was selected for experiment. The skin was incised under strict antiseptic precautions, portions of the growing tissue were cut away with the aid of a knife and forceps, sterilised by heat immediately before use, and the fragments excised were at once placed in cultivating tubes of agar-agar and gelatine. In a second case a commencing nodule upon the plantar fascia of a patient, suffering also from Dupuytren's contraction of the hands, was treated in a similar manner. In Case 1 two of the three fragments quickly showed a growth obviously due to contamination. On the third and fourth days a yellow nodule appeared in all three specimens, and on cultivation assumed a form which led us to believe that a specific organism had been isolated; but on making a cover-glass preparation of this it proved to be a form of yellow sarcina, and hence merely a contamination. In the jelly tube containing one of the original pieces of tissue and in the agar tube a second growth has now appeared, liquefying the jelly. This is not a putrefactive organism, as the tube is odourless, but some time will be necessary before it can be followed up. In Case 2 no sarcina appeared, but there is a white growth, probably identical with that in Case 1. Sections from Case 1 stained with fuchsin and by Gram's method showed no organisms as viewed under $\frac{1}{12}$ homogeneous immersion. We trust that it will be possible to publish this and other experiments *in extenso* within a short time. Meanwhile it can only be said that they do not negative the view expressed as to the origin of the disease.

False Dupuytren's contraction, traumatic form.—There is a form of palmar contraction usually classed with that just described, but I believe essentially of different nature. This is always due to obvious traumatisms, such as incised or lacerated wounds of the palmar fascia, and the cases present noteworthy features which separate them from the true forms. A distinction of the kind was recognised nearly thirty years ago by Eulenburg, but his views attracted little attention. The points for especial notice are as follows:—1. The age at which the lesion begins is governed by the period of injury, and shows none of the limitations observable in the true disease. The condition is hence as common in childhood and early adult life as in middle or old age. In the seven cases (five male and two female) in my list the ages of commencement ranged from seventeen to sixty-one, four of the patients being under forty. 2. The seat of initial lesion is single, and the affection is confined to the injured hand, not tending to appear subsequently in other parts of the same hand or in the opposite member, as in most examples of the specific form. 3. The contraction progresses rapidly to a certain point, and then ceases to get worse. It rarely becomes so strongly marked as in the worst cases of the true Dupuytren's disease. 4. The contracted band, starting from the point of injury (which is indicated by an ordinary scar) has seldom the tendon-like form of the well-marked "Dupuytren," the characteristic puckers in the skin are represented only by ordinary cicatricial adhesions, and the digital extensions are usually in the form of one or two lateral bands following the bifurcation of the digital process of the radiating fascia. 5. The effect of operation is different. Subcutaneous division is less efficacious when the skin is extensively implicated in the cicatrix, and the excision of the band or the transplantation of a flap after division of the cicatrix is not followed by the strong tendency to recurrence observable after similar proceedings in the true form. In all the seven cases in my list the nature and traumatic origin of the disease could be recognised without difficulty. It is probable, however, that a true Dupuytren's contraction might be set up by a process of infection in connexion with an open wound, and in such cases the distinction between the two forms of disease would disappear. A subcutaneous cicatricial contraction of the finger may also result from violent and sudden super-extension of the joint. The lateral bands extending from the radiating fascia are ruptured, and if the finger is not kept straight by mechanical appliances a contraction of the joint is liable to occur. In such cases the resistance to extension is felt to depend upon two tense lateral bands, while the movements of the articulation in the direction of flexion remain strong and normal.

Treatment.—Some eighty years ago Baron Boyer said with regard to the disease now under consideration, that it had been advised to expose and divide the contracted tendon, and even to excise a portion, afterwards keeping the hand extended upon a splint; but, he remarks, "Le succès d'une

telle opération est trop incertain; elle n'a probablement jamais été pratiquée et un chirurgeon prudent devra toujours s'en abstenir." It was he who expressed the congratulatory belief that surgery had already in his day reached its final limits, and all that had not then been accomplished could scarcely be regarded as attainable. It cannot be said that the treatment made any real progress for many years after his time. It is true that Sir Astley Cooper advised subcutaneous section of the contracted bands, but the suggestion was not carried into practice till much later. Dupuytren, having decided that the tendons were not affected, did what Boyer considered unpermissible, cut the contracted cords and superjacent integument, and straightened the hand upon a splint, with results that appeared to fully justify the remarks of his predecessor, for under this treatment the gaping wound suppurated; and if the patient recovered without loss of the hand the process of cicatrisation at length restored the deformity in a more hopeless and distressing form than before. A few years afterwards Goyrand recommended an improved method: that of exposing the tense bridle of morbid tissue by a longitudinal incision, dividing it, and then reuniting the edges of the cutaneous wound; and this plan was adopted with various modifications by other surgeons. The absence of antiseptic precautions, however, exposed the wound to all the dangers of infection, and as the treatment mostly failed to secure the advantage hoped for it fell into disrepute, and patients were usually dissuaded by their friends, and even by their medical attendants, from submitting to any operative measures. It is to Jules Guérin that we are indebted for the first demonstration of the value of the subcutaneous method proposed by Sir Astley Cooper, and the practice was carried out in this country by Messrs. Tamplin and Lonsdale, but was brought to perfection by Mr. William Adams. For a time the subcutaneous operation held its ground without a rival, but the introduction of the antiseptic principle in surgery rendered it possible to reconsider the discredited open method, and the plan was revived with various modifications by Kocher, Busch, Hardie, and others, with encouraging though variable results.

The therapeutical measures now eligible may be briefly enumerated:—

Non-operative treatment.—There is no doubt that in the milder cases and when the morbid process has come to a standstill a considerable improvement may be effected by massage and persevering extension. I have seen in a patient of seventy the fourth and fifth fingers brought from an angle of 90° with the palm nearly to a straight line within a year, but the contraction relapsed completely in three months, when a severe illness made it necessary to suspend the treatment. We have heard much of the wonders effected by hypnotism during the latter days, but the surgeon hardly expected to be told that Dupuytren's contraction, of all diseases, could be cured by "suggestion." Yet in a recent volume of one of our medical journals we find a successful result claimed for such a treatment. The chief interest of the record lies in the example it affords of the survival at the close of the nineteenth century of the peculiar mental condition that brought patients to the feet of Greatrakes and Perkins in a bygone generation.

The *operative measures* may be divided into three classes—subcutaneous, open, and plastic.

The *subcutaneous method* deserves the first place. Mr. Adams, to whom we owe the establishment of the operation in the favour of surgeons, sums up its principles as follows: "1. The subcutaneous division of all the contracted bands of fascia which can be felt; the bands to be divided by several punctures with the smallest fascia knife passed under the skin and cutting from above downwards, a pledget of lint being at once placed over each puncture and retained in position by a strip of plaster. 2. Immediate extension to the full extent required for the complete straightening of the fingers when this is possible, and the application of a retentive, well-padded, metal splint from the wrist along the palm of the hand and fingers; the fingers and hand to be bandaged to the splint. When the extension cannot be immediately made to the full extent, as in those cases where the second phalanx is sharply flexed upon the first, it must be carried as far as possible without producing pain or incurring the risk of tearing the skin." This plan I have followed, with slight and unimportant variations, but I have found it easier, after making the preliminary puncture (which should be longitudinal in direction to prevent gaping during the subsequent extension), to pass the knife beneath the band and to cut from within outwards, except in places where the deep surface of the skin is very tightly adherent. The sensation conveyed to the operator by the division of the round palmar cords is very similar to that experienced in tenotomy, and the effect of each section is immediate and encouraging. In some examples, however, the morbid tissue has become so firmly blended with the corium, especially over the proximal phalanx, that a satisfactory division is difficult, or even impossible; and if the extension be carried too far ominous fissures begin to appear in the rigid integument. When this happens the surgeon, if wise, will be satisfied with whatever he has been able to achieve, without proceeding further at the time. The extension may be immediate or deferred. Where the skin has held good there is no reason why the fingers should not be put in position at once and fixed in place by a splint of plaster-of-Paris or other material; but if it be evident that the integument at any point has been severely strained, it is desirable to wait for a few days before the parts are put on the stretch, and there is no reason to believe that the delay will be attended by any disadvantage. The operation may with benefit be preceded by careful washing of the hand and packing with a weak solution of perchloride of mercury solution or other antiseptic, and antiseptic dressings should be applied until the incisions are completely healed. The after-treatment consists in the use of splints of various forms. The palmar splints of Mr. Adams are very convenient, but in the early periods plaster-of-Paris are equally satisfactory, and render the intervention of the instrument maker unnecessary. Whatever form be adopted it should be worn day and night for two or three weeks, and then be replaced by a well-moulded front splint of sheet iron, to be applied at night only, and kept in use for several months. The hand once set free during the day the patient is to be urged to practise friction with passive extension and active movements of the joint at every possible opportunity, and it is only by strict attention to these rules that permanency of the improvement can be ensured. In private practice the instructions are usually carried out with a good will, and hence relapses are exceptional. Mr. Adams and Mr. Macready estimate them as less than 10 per cent. But in hospital practice the case is different. The artisan has seldom much leisure or inclination for unpleasant manipulations for which, despite the assurances of the surgeon, he sees little immediate necessity, and he frequently allows the hand to drift into a condition which, if not worse, is at least little better than before.

The *open operations* may be placed under two separate headings—one in which the bands are merely divided in one or two places, and the other in which the morbid tissue is excised as far as possible. The first of these, however—the original method of Goyrand,—may now be held as superseded, since it has neither the safety of the subcutaneous method nor the thoroughness of the more radical measure. We need therefore only discuss the latter. The cutaneous incision may be either longitudinal and linear, as practised by Goyrand, Kocher, and others, or V- or Y-shaped, after the method of Busch, Madelung, and Richer. In any case the reflected skin should be very gently dealt with, and the wound carefully closed after the removal of the diseased bands. In most instances the simple linear incision gives all that is required, but the other varieties are useful when the distal end of the band branches or expands. The isosceles flap of Busch is made with the base opposite the metacarpo-phalangeal joint, the apex at the distal extremity of the hollow of the palm. (Fig. 4.) When the hand is extended after section or excision of the contracted tissue the apex of the flap is drawn away from the angle of the incision, and the wound when closed assumes a Y-shape. A Y-incision, with the fork over the first phalanx and the stem corresponding to the palmar cord, is of advantage where the fibrous band spreads out broadly and becomes adherent to the skin beyond the metacarpo-phalangeal joint, the reflection of the angular flap beyond the fork allowing the safe removal of the diseased tissue. In any of these operations the anatomical relations of the vessels and nerves should be carefully borne in mind. Fortunately the morbid tissue seldom encroaches upon the nerve tracts in such a way as to expose them to danger. The best rule for the surgeon is to confine his dissection as far as possible to the tissue overlying the axes of the flexor tendons, and not to make

any further lateral excursion than is absolutely necessary. Extreme care, however, will always be needed in excising the cords which run towards the inter-digital web, as these lie directly over the nerves. The tendons are quite safe in the palmar incisions, as they lie much deeper than the fibrous cords, but the diseased tissue is closely related to the theca in the fingers. The after-treatment is similar to that recommended for the subcutaneous operation,

FIG. 4.

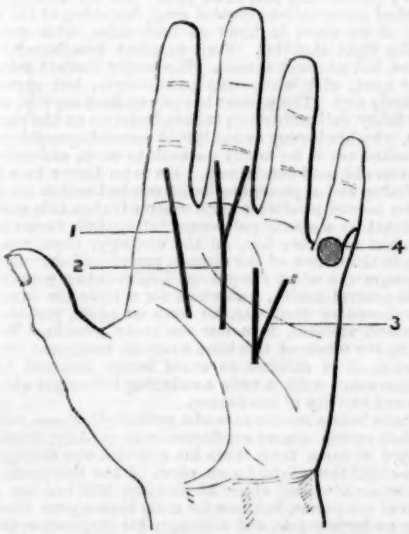
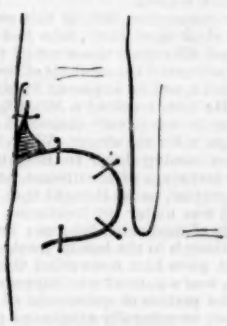


DIAGRAM SHOWING INCISIONS FOR OPEN AND SMALLER PLASTIC OPERATIONS.

1, Straight incision (Goyrand). 2, Y-incision modified to allow excision of digital expansion of band. 3, V-incision of Busch. 4, Position of flap to fill gap left by section of contracted band and superjacent integument.

SECTION OF FIG 4.



DIAGRAM

Showing lateral flap transplanted into gap left by division of the contracted band, with the superjacent integument at the level of the interdigital web.

but for obvious reasons the necessity for antiseptic precautions is more vital in the open method. No drainage is required.

Plastic operations may be conducted under the same principles as those which guide the surgeon in the treatment of cicatricial contractions from burns or other causes. In two cases of contraction at the metacarpo-phalangeal joint, in which the skin was greatly involved, I have made a transverse incision through the integument and fibrous cord at the root of the finger and filled up the wide gap left on extending the joint by the transplantation of a flap from the side of the digit. The result was good and permanent in one case, of traumatic origin; in the other, a true Dupuytren's contraction, the union and healing went on with ideal perfection, but the operation failed in consequence of the supervention of a gouty inflammation of the parts in the third week, after all the difficulties appeared to have been surmounted. The dissection of the flap must be carefully conducted in order to avoid injury to the digital nerves. In some cases it might be permissible to carry the plastic principle still further by the transplantation of a flap on the Tagliacotian principle from the chest or upper arm or any other convenient point. The details of the operation need not be described, as it has already been carried into practice in cases of cicatricial contraction, although it has not, I believe, been recommended in Dupuytren's disease.

Of these various procedures I believe that the best operation in all advanced cases is the subcutaneous plan of Mr. Adams. It is speedy and safe, the immediate results are very satisfactory, the risks of relapse probably less than in the open method, and in the event of a recurrence the other lines of treatment still remain open. The excision operation involves a more extensive surgical injury, but under antiseptic precautions will usually do well. There is, however, a greater risk of casualties. It is perhaps most applicable to the slighter cases, in which the whole of the disease can be removed, but it may also be employed where the subcutaneous plan has failed. The plastic operations are most useful in the traumatic forms, and in those cases of true Dupuytren's contraction where the skin is so far involved that full or satisfactory extension is impossible. The little operation I have suggested produces an immediate result, and under ordinary circumstances a long after-treatment is unnecessary, because the flap of integument does not tend to contract. The larger operation can only be called for in very severe cases where all other measures have failed. It is not certain in any given example whether the surgeon will be successful in giving lasting relief to the patient. Were it simply a question of dividing or excising a common cicatricial band, there is no reason why the result of every well-devised operation should not be permanent; but experience shows that even with the greatest care it is always difficult, and sometimes impossible, to prevent a return of the condition which gave rise to the deformity in the first place—that is, a growth of fibrous tissue which tends to contract, and occasionally this new formation may become diffused around the articulations in such a way as to impede both flexion and extension, and by leading to a kind of false ankylosis induces a more serious loss of function than that which existed before the intervention of the surgeon.

[A number of patients were introduced during and after the lecture to show the varieties of the affection and the results of treatment.]

The main conclusions arrived at may be stated as follows:—1. There are two forms of disease comprised under the name "contraction of the palmar fascia," the one traumatic in origin, dependent upon common inflammatory changes in the integumental and fascial structures, and occurring at all ages; the other unassociated with obvious traumatism, tending to multiplicity of lesion, and almost confined to middle and advanced life. 2. The latter condition, true "Dupuytren's contraction," is not, strictly speaking, a contraction of the palmar fascia, but consists of a chronic inflammatory hyperplasia, commencing in the subcutaneous connective tissue and involving secondarily the palmar fasciæ and the deep fibres of the corium. The morbid bands are for the most part formed at the expense of the normal tissues. 3. It does not appear to be connected primarily with pressure or friction of the palm by tools or other objects employed in manual occupations, but is probably caused by a specific infective agent which effects its entrance through epidermic lesions made by the finger-nails or otherwise. 4. It is almost essentially a disease of middle and advanced age, more common in men than in women, occurring in all classes, tending to progress slowly through a long course of years, and to return after operation. 5. It is connected with a special diathesis, inherited or acquired, which cannot yet be expressed in any known terms; but neither gout, rheumatism, rheumatoid arthritis, nor any other of the ordinary constitutional ailments has been shown to have any causative relation to the disease. 6. It appears to be almost, if not quite, unknown in certain parts of the East, as in India and Japan.

ON THE USE OF MODIFIED OPIUM-SMOKING IN PULMONARY TUBERCULOSIS.[1]

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SINCE Koch made the first announcement of his remedy for tuberculosis, several other plans for the treatment of this terribly destructive disease have been brought before the medical profession, some of which have been the work of *bonâ-fide* observers, who were stimulated by the publication of Koch's researches to make known the results of their own labours in the same field, and others, perhaps, worthless imitations, brought forward by charlatans who hoped to float into publicity upon the wave of popular opinion which was directed to the subject. Let me preface my remarks, however, by saying at once that it is not in any sense as a "cure for consumption" that I wish to bring the question of opium-smoking before the profession, but simply because my experience of it has led me to the conclusion that it is a valuable palliative, and therefore of service, as an aid to other measures, in the treatment of the disease. I was greatly struck a few years ago, in reading an article written about China, to find it stated that in certain districts of that country where tuberculosis was extremely prevalent, the opium-smoking population were almost exempt from the disease, and this induced me to try the effect of a mixture of opium and tobacco upon some of my pulmonary patients, in a tentative way at first, and in small quantities, and, I regret to say, without keeping a careful record, for it was only when I found that the patients almost invariably expressed themselves relieved by it, and *seemed* better, that I began to note with accuracy the amounts given and any change which took place in the condition of the patient. My custom has been to soak the tobacco in Battley's liquor opii sedativus, choosing this preparation because it contains all the component parts of opium in a fluid form, and to use it when it has dried. I have given this mixture in various proportions, and I think that a useful strength is three fluid drachms of the Battley to one ounce of tobacco, but of course it can be made much stronger than this. I usually advise the patient not to smoke just before eating, and I never in any case tell him how the tobacco is medicated. The most marked therapeutic effects of smoking opium in this way are that it eases the cough, and acts as an expectorant, "cuts the phlegm," as the patient often expresses it. One poor man assured me that he had not the strength to get up in the morning until he had smoked part of a pipe to relieve his chest. The material which I have collected is not yet sufficiently large to draw any conclusion as to whether opium administered in this form has any specific effect upon the disease, although almost without exception the phthisical patients to whom I have given it have thought that they derived great benefit from its use; nor has sufficient time elapsed, as I have only employed it for two years, to make sure that the improvement which has taken place in any case is permanent. In this connexion two sources of error in considering the effects of any treatment upon the course of pulmonary tuberculosis have, I think, been quite left out of sight in the numerous statistics which have recently been published. The first is the fact that tuberculosis is an undoubtedly curable disease in certain cases, and it is quite possible to conceive that a coincidence of the cure and of the particular treatment adopted may explain many excellent results. The following case is an illustration of this in my recent experience.

J. D——, aged twenty-seven, a tailor by trade, came to see me on Nov. 25th, 1890. He was extremely emaciated and weak, and so short of breath that he even spoke with difficulty. About Nov. 2nd he had suffered from severe hæmoptysis at intervals for a week, losing, his friends told him, "almost three quarts of blood altogether." Before this he had been wasting very rapidly for six months. He had a terrible cough and profuse expectoration. Physical examination of the chest revealed extensive disease at both apices, evidently breaking down, with a cavity about three inches below the right apex. On Nov. 28th he began opium-smoking. I will not give details of very full notes of this case; but at first the patient was extremely ill, and upon several occasions he was too weak to come to see me. However, about the middle of January he had greatly improved, and his night sweats had stopped. He had no hæmoptysis after I first saw him, although he had the taste of blood in his mouth at times for a week or two, and his very rapid pulse made me fear that it was impending. On the 3rd of February, 1891, his weight was 9 st. 12 lb.; on the 17th, 10 st. 3 lb.; on the 3rd of March, 10 st. 5 lb.; on the 17th, 10 st. 10½ lb.; on the 31st, 10 st. 13½ lb.; on the 14th of April, 10 st. 13½ lb.; on the 28th, 11 st. 4½ lb; and on May 5th, 11 st. 1½ lb. On the 28th of April physical examination revealed great flattening of the upper part of the chest in front on both sides, with dropping of the right shoulder. Very deficient breathing at both apices, but no moist sounds. The cavity distinct below the right apex, with whispering pectoriloquy, but apparently perfectly dry. The patient has put on flesh rapidly, and is now fairly well nourished; in fact, he seems on the road to a cure, whether lasting or not it is of course impossible to say. He asked me if he might go back to work, and evidently considers himself nearly well. He is no longer in a hectic condition, and at present no bacilli can be found in his sputa.

The second possible source of error is that it is quite exceptional for a case of pulmonary tuberculosis to go steadily from bad to worse; but, on the contrary, there are, as a rule, in the course of the disease, periods of intermission in its progress in which the patient improves to a great extent in his general health, and when for a time the symptoms are relieved or disappear, to come on again, perhaps with increased violence, in a few weeks or months. Now, if during the whole of this time a certain treatment has been pursued, it is difficult to avoid being deceived by the improvement until a rude awakening is brought about by renewed activity of the disease.

I have before me the case of a patient, C. F——, who has smoked opium almost continuously since July, 1889. He stopped it for a time, when his appetite was failing, as I feared that this might be an effect of the treatment. He was in an advanced stage of phthisis, and had the usual train of symptoms, but now for more than a year there has been no hæmoptysis, and although his respiration is very rapid and shallow, and the expansion of his chest very limited in extent, no moist sounds are to be heard, and apparently the disease is at a standstill. His weight on Sept. 23rd, 1890, was 9 st. 11 lb., and on May 1st, 1891, 9 st. 10 lb. It has remained at about this point during the interval, his highest weight being 10 st. 1 lb., and the lowest 9 st. 7 lb., increasing up to Nov. 4th, 1890, and then diminishing gradually until April 17th, 1891, since which time it has again increased.

Another very instructive case in this connexion is that of H. P——, a clerk aged forty, who had been obliged to give up work, and who came to see me at the end of July, 1889, with very advanced tuberculosis of both lungs. I gave him opium to smoke, and he improved for about two months very rapidly. He then received a letter for the Brompton Hospital, and, as he was in very distressed circumstances, I advised him to go in for the winter. When he left Brompton he insisted upon coming down to Brighton, although he was in the very last stage of the disease, and could scarcely get up to the hospital, as he thought that the only benefit he had received was under my treatment. I gave him an unlimited supply of medicated tobacco; but he died within a few weeks, although to the last he smoked nearly all day, and said that it gave him more relief than anything else. Here, of course, was a patient who happened to come to me during one of the periods of quiescence of the disease, and who therefore not unnaturally attributed the improvement in his condition to the treatment he received.

A similar instance is afforded by a poor fellow who had been obliged to give up his work as an official upon the railway, and was going down hill rapidly, but who improved so much with rest and opium-smoking that, very much against my advice, he has gone off his club and resumed work. I fear that in all probability he will come back to me presently, and possibly in a very much worse state than at first.

Another source of error to be guarded against, although not so misleading as the last mentioned two, as it can be checked by the actual phthisical signs, is the hopeful disposition of most phthisical patients, the enthusiasm with which they adopt any new treatment, and their self-deception as regards its effects—a sanguine mental state which is apt to be very contagious.

And now a word of warning as to the use of such an edged

[1] A paper read before the Brighton and Sussex Medico-Chirurgical Society on May 7th, 1891.

tool as opium. We certainly do not inject an unknown poison into the system to work its wicked will independent of our control; but, on the other hand, we may be the means of introducing a moral poison, the terrible nature of which can only be realised by those who have had the painful task of trying to cure a victim of the opium habit, and for this reason I have made it a practice never to allow my patients to know what they are smoking, merely calling it medicated tobacco.[2] At the same time I cannot help thinking that the dangers of smoking opium are greatly exaggerated, although I suppose that, like so many things, it is liable to abuse. I have smoked it myself, by way of experiment, in various strengths up to the pure drug, and have found it very disagreeable, but beyond that it has produced absolutely no recognisable effect. Certainly I have experienced a slight giddiness similar to that which is caused if I smoke strong tobacco, but nothing else; and among my patients in no case have I observed the usual well-known symptoms caused by taking opium internally, nor can I remember it to have distinctly caused even drowsiness. If the stories of Chinamen taking three or four whiffs and lying back in blissful unconsciousness are true, as they undoubtedly are, I should imagine that they must either swallow the smoke and so get the opium internally, or else that they do not use pure opium, but a mixture of opium with other things. That the therapeutic effects of a drug should be different when it is used in different ways, is in noway surprising if we only for a moment consider the analogous case of tobacco. My own experience is borne out by a recent writer upon opium dens in London, who smoked, as he says, "four good pipes" in the Chinese fashion, prepared for him by a Chinaman, with absolutely no effect. He asserts, upon the authority of his Chinese friend, that "the supposed state of awful intoxication is a myth."

Now, regarding the patients' own estimate of the value of opium-smoking, the very obvious suggestion arises that if we give tobacco, in no matter what form, to our out-patients, they will of course say that it does them good; but, strong as this argument appears, it can hardly in fairness be applied to a patient who is very ill with pulmonary tuberculosis, or to one unaccustomed to smoke, nor of course to those in good circumstances; and it is contradicted, moreover, by the fact of their sometimes asking to have their own tobacco medicated for them. Further, I shall no doubt be reminded of the traditional maxim that nothing can be learned from out-patients; but in the case of pulmonary tuberculosis I entirely differ from this theory. On the contrary, I think that a far better estimate can be made of the specific action of any treatment if during its administration the patient is left in his usual circumstances, than if he is put into the different, and perhaps very much healthier and more comfortable, surroundings of a hospital; and I have very little doubt that a large proportion of the good done by special hospitals is due to the change for the better in the conditions of the patient's life. Many patients suffering from phthisis are obliged to give up work, and so feel the pinch of poverty, become ill-nourished and weak, and the disease makes rapid strides; but when they are transferred to a warm and comfortable hospital, and get the best possible food and treatment, the pace down hill is slowed, and an improvement, either temporary or permanent, takes place.

Unfortunately, we have no specific remedy for tuberculosis; time enough has not yet elapsed since the introduction of the new and much vaunted methods of treatment to allow a certain judgment to be formed of their value, and, even if adverse criticism be rejected, the only possible attitude with regard to them is at best an agnostic one. No doubt in time to come we or our successors will be able to battle confidently with this most fatal disease; but at present we must welcome every means of treatment which will give a measure of ease to our patients, or which appear to offer any help to Nature in the efforts which she undoubtedly makes to conquer the morbid process. It is in this sense, and in this sense only, that I have brought the matter of opium-smoking before the profession. Whether the drug administered in this way has any definite effect upon the disease I cannot of course pretend to say. Possibly in the course of time an analysis of collected material may point to a conclusion one way or the other; but it is because it has *seemed* to do good that I have ventured to ask that it be given a trial, not as a substitute for the treatment which professional skill and experience have been led to adopt, but as a possible aid to it.

Brighton.

[2] A difficulty arose in prescribing, as chemists are not allowed under the licensing laws to sell tobacco. A suggestion, however, which seems to meet the case, was made by Messrs. Savory and Moore, and approved by other chemists, that I should flavour the Battley, or a watery preparation of opium of the same strength, with a little Tonquin bean, and call it liquor thebaicus compositus, to avoid the name of opium. Then a certain quantity can be ordered with directions to the patient how to mix it with his tobacco in the proper proportions.

A CASE OF CEPHALIC TETANUS.

BY EDWARD ROBERTS, M.R.C.S.,
ASSISTANT SURGEON TO THE ROYAL EYE HOSPITAL, MANCHESTER.

With Microscopical Examination
BY R. T. WILLIAMSON, M.D., M.R.C.P.

THE following case of cephalic tetanus occurred at the Royal Eye Hospital, Manchester, in July, 1889:—The patient was admitted under the care of Dr. Glascott, who has kindly allowed me to make use of the case. Dr. Williamson has made a careful microscopic examination of some of the nerves and the base of the brain, and his results and methods of examination are fully recorded at the end of this paper.

Arthur B. H——, aged sixty-four, was admitted into the hospital on July 1st, 1889. He was a gardener, and was a healthy, wiry looking man. The following history was obtained, partly from the patient and partly from his friends:—While at work on June 26th he ran his face against a sharp-pointed piece of stick which he was holding in his hand, and which he had just pulled out of the earth. He thought nothing of the wound, and continued at his work till June 30th, when, noticing some difficulty in mastication, he consulted a doctor, and was advised to come to this hospital. I saw the patient on the night of admission, he then had well-marked trismus, and I ordered him fifteen-grain doses of chloral hydrate. The next morning I examined him carefully, and took the following notes:—July 2nd: The patient has had a restless night; he refuses to take any more chloral hydrate, as he says it makes him worse. There is a horizontal cut a quarter of an inch long just below the left lower eyelid, the edges of the wound are of a bluish colour, the base is indurated, and there is a slight discharge; the wound is a superficial one. The left eye is completely fixed; the pupil moderately dilated, and does not react to light. Vision is said to be good. In the right eye the movements are normal; the pupil is extremely small; vision is said to be good. The jaw is tightly closed, and during the paroxysms of contraction the patient grinds his teeth in a horrible manner. He has no difficulty in swallowing, taking milk and beef-tea from a feeder, through a gap between his teeth. He is quite conscious, and can say a few words with difficulty. The facial muscles of the right side are in a state of tonic contraction, while those of the left side are completely paralysed; the face is consequently drawn to the right side, and the tip of the nose is bent markedly over to this side. The contraction of the muscles of the right side of the face and those of the lower jaw are the only signs of tetanus; the slightest noise, such as opening the door or a footstep, brings on severe paroxysmal attacks. Patient complains of pain, which runs from the left ear down the left side of the lower jaw; there is no hyperæsthesia or anæsthesia. The morning temperature is 99·4°, the pulse 98 and full, and the breathing quiet. Ordered fifteen-minin doses of tincture of opium, and as much fluid nourishment as he can take. Evening temperature 100·2°; pulse 98 and full.—3rd: Dr. Ross kindly called and examined the patient, who is worse to-day; he always lies on the left side with his head over the bed, and keeps blowing out saliva, which seems to be secreted in large quantities. He cannot swallow, and on taking a mouthful of milk it comes spluttering out through his mouth and nose. All the conditions noted yesterday are present to-day, but there are now, in addition, the following. During the paroxysmal attacks there is marked hardening of the muscles of the abdominal walls. The third and fourth nerves on the right side are paralysed, as shown by ptosis, and complete inability to move the right eye in any direction but outwards; the movement even in this direction is imperfect. The pupil, however, remains extremely small. There is paralysis also of the upper half of the right facial nerve, and the right upper lid remains in any position that it may be

placed with the finger. Vision appears to be good; the fundus cannot be seen, as the paroxysmal attacks are severe and the corneæ are hazy from exposure. The temperature is 100·2°, the pulse 98 and full, and breathing quiet. Patient has to be fed by nutrient enemata, and ten grains of chloral hydrate are added to each.—4th: During the night the paroxysmal attacks became less marked, and the patient was so quiet that his friends thought he was recovering. This, however, was only due to exhaustion, and he died at 9 A.M. Shortly before death the temperature fell to 97°, and the pulse became running.

A post-mortem examination was made seven hours after death. The wound was merely superficial, and did not enter the orbit. The naked-eye appearance of the brain was normal. The base of the brain, and portions of the left facial, and the left third nerves were preserved for microscopic examination.

Rose[1] was the first to draw attention to the fact that some cases of tetanus, arising from injury to the face, are accompanied with facial paralysis. He records three cases, two of which occurred in his own practice, and the third had been described by George Pollock as early as 1847. Similar cases are reported by Nankivell,[2] Bond,[3] Hulke and Williams,[4] Rockliffe,[5] and Lannois.[6] In the short account of these eight cases given below it will be noticed that in seven of them the paralysis was confined to the facial nerve on the same side as the injury; in the eighth case, the wound being through the left upper lid, in addition to left facial paralysis there was complete right and partial left ptosis. The case that occurred at this hospital is therefore chiefly remarkable for the extensive paralysis which existed. Rose thought that the paralysis was peripheral, and was caused by a swelling of the facial nerve, and its consequent compression in its passage through the aquæductus Fallopii. Gowers considers the paralysis to be of reflex origin, and points out the fact that irritation of the fifth nerve, as from a decayed tooth, may cause paralytic ptosis. He also states that in one recorded case of cephalic tetanus ptosis formed part of the symptoms of the disease. Bond thinks that in cases of cephalic tetanus the lesion may be more marked on one side of the brain than on the other, the first changes giving rise to increased irritability and excessive nervous discharge, and the more advanced changes causing paralysis of the facial nucleus. Rose's first case—F. S——, a coachman, aged twenty-eight—was admitted into hospital on Feb. 2nd, 1863. On Jan. 31st he had received a blow on the left lower eyelid from the handle of a whip. Trismus began to show itself the next day. On admission there was a gangrenous slough, of the size of a sixpenny piece, situated on the left lower lid. Besides trismus, there were hardening of the abdominal muscles, inability to swallow or to retain the saliva in the mouth; also left facial paralysis. The paroxysms of contraction were frequent and severe, and threatened the patient with suffocation. On Feb. 3rd the spasms extended to the legs, and the man died at noon. An enema containing twenty drops of tincture of opium had been given, but it was impossible to repeat it. At a post-mortem examination on the following day the wound was found to be only a superficial one: all the organs were healthy, there was congestion of the pia mater, and the ganglia of the brain, on transverse section, showed red spots. The second case was that of a bargeman who fell against some planks of wood and cut his face. In the second week after the accident he was admitted into the hospital with tetanus. The wound, which was situated on the right side of the face over the upper jaw, had a depressed appearance, as if there was diseased bone. There was trismus, rigidity of the muscles of the neck and abdomen, and right facial paralysis. The spasms afterwards extended to the muscles of the thighs. A small splinter of wood was discharged from the wound, the tetanus passed away, and the patient recovered. Pollock's case was that of a man aged thirty-three, who had received a blow in the left eye from the lash of a whip. There was a superficial wound extending across the cornea. On the tenth day there was perforation of the cornea, and trismus set in the same evening. Panophthalmitis supervened, and was treated by incisions; this brought on contractions of the facial muscles on the right side. On the eighteenth day there was total paralysis of the right side of the face, and on the following day the patient died. Nankivell's case: J. G. L——, aged thirty-three, attended as an out-patient on March 12th, 1883, suffering from a slight attack of facial erysipelas, which came on after a wound on the bridge of the nose. On the 17th the patient was discharged cured. He came again to hospital on the 19th, stating that on the afternoon of the 17th he noticed that he could not open his mouth or close his right eye. On admission there were trismus and right facial paralysis. On the 21st there was hardening of muscles of the neck and back, also pain in the epigastrium. On the 23rd there was spasm of the muscles of respiration and opisthotonos. Death took place on the following day. Bond's case: R. J——, aged twenty-three, was run over on June 5th, and received a severe scalp wound in the right temporo-parietal region, without any fracture of the skull. Symptoms of tetanus set in on the sixteenth day after the accident, and a week later there was right facial paralysis. There was never any laryngeal or pharyngeal spasm, and the patient could take fluid nourishment. The case was treated with large doses of chloral hydrate, and the patient was discharged, completely cured, on Aug. 18th. Williams records a case, which was under the care of Hulke, in which tetanus was complicated by paralysis of the right side of the face. There was an angry-looking wound on the bridge of the nose, and another on the back of the first phalanx. Rockliffe recorded a case in which a boy aged seven received a slight penetrating wound of the left orbit from a fall. On the tenth day tetanus appeared, and was followed by complete right and partial left ptosis, with paralysis of the left side of the face. The wound was opened up, and washed out with perchloride of mercury solution, and the patient recovered in three weeks. Lannois reports a case of cephalic tetanus which occurred in a man aged sixty-nine. On admission to the hospital there was a wound on the left side of the face near the external angle of the orbit, and trismus with left facial paralysis. The pupils were small and insensible to light, and the vision was normal. On the third day the spasm extended to the muscles of the neck, and to those of the pharynx. The patient was now unable to swallow, the paroxysms of contraction became more frequent, and he died that night. This is the only case that we have been able to find recorded in which a microscopic examination of the nerves was made.

Microscopical examination by Dr. R. T. WILLIAMSON.—The parts kept for microscopical examination were the medulla oblongata, pons, lower portion of crura cerebri, corpora quadrigemina, the upper third of the spinal cord, the left third nerve (with small portions of the ocular muscles attached) and the left facial nerve. The parts of the nervous system above mentioned were hardened in Müller's fluid; then embedded in celloidin, and innumerable sections were cut from every portion. Sections of the medulla and pons were stained according to Weigert's method, also with aniline blue-black and with logwood. Sections of the corpora quadrigemina and crura cerebri with aniline blue-black. Careful examination failed to reveal anything abnormal, with the exception of slight dilatation of the bloodvessels at the posterior part of the medulla. The nuclei of the facial, the third, the fourth, and the sixth nerves presented a normal appearance. Transverse sections of the left facial nerve were cut and stained with aniline blue-black. The sections were quite normal in appearance. Pieces of the nerve were teased and stained with aniline blue-black, Weigert's stain, logwood, &c., but nothing abnormal could be detected. Pieces were taken from the left third nerve close to the crus cerebri, also from the large and small branches of the nerve, and from the smallest branches just before entering the ocular muscles. Transverse sections of all these portions were made, and also teased specimens were prepared and stained with aniline blue-black, Weigert's stain, osmic acid, and logwood. Careful examination again failed to reveal anything abnormal. The specimens were compared with normal nerve fibres and with a number of specimens of teased nerve fibres, from cases of alcoholic neuritis, stained in the same manner. Close comparison failed to satisfy us that there was any evidence of neuritis in the left, third, or seventh nerves of the case under consideration. Though the microscopical examination was undertaken with the expectation that some changes would be found in the third and seventh nerves, if not elsewhere, yet the results were

[1] Ueber den Starrkrampf, Handbuch der Chirurgie, von Pitha und Billroth, Bd. i., Abth. ii., Abschnitt ii. 5.
[2] THE LANCET, vol. ii. 1883. [3] Brit. Med. Jour., Nov. 10th, 1883.
[4] Med. Press and Circular, vol. lxxxiv., 1882, p. 25.
[5] THE LANCET, July, 1890. [6] Revue de Méd., No. 2, 1890, p. 108.
[7] Sereins, L'Union Méd., No. 173, 1886.

altogether negative. The results of microscopical examination of the medulla, pons, and cord, in cases of tetanus, have frequently been negative, and the changes which have been described have been slight and have varied very much. In a case of cephalic tetanus, reported by Lannois in the *Revue de Médecine*, No. 2, 1890, the results of microscopical examination were negative. There was facial paralysis, and the facial nerves were examined microscopically, but with the result above stated.

Manchester.

FURTHER NOTES ON INFLUENZA.

BY WM. SQUIRE, M.D., F.R.C.P., &c.

MY notes on this subject, published last year in THE LANCET of Aug. 16th, page 335, called attention to the persistence of influenza in London. Subsequent cases, increasing towards the end of the year, caused a widely spread apprehension of a reappearance of the epidemic, such as occurred in 1848, notably in 1837, also both here and in Paris in 1833 as a direct consequence of the outbreak of 1831. Whatever may have been the origin of this 1831 epidemic in England, the close connexion to be observed between it and every subsequent manifestation of influenza in this country is remarkable. Notes of cases in London of June, 1831, by Dr. Burne so exactly correspond with those now under notice as to deserve further mention. He at once classes those cases as "influenza—a disorder according exactly with the tussis epidemica of Sydenham, and the influenza of later authors."[1] In 1833 Mr. Hingeston says:[2] "In the middle of the month of March several persons were attacked with the affections of the bronchia and larynx common in the spring of the year, but it was not till April 6th that the influenza started up widely on a sudden"; three varieties are then described, exactly answering to what we see now, and he goes on to say[3]: "Those persons were the least liable to the influenza who were the most exposed to the outward changes of the weather." The chief argument for the epidemic of 1836–37 being of home growth, and the result of the preceding prevalence of the disease is found in the numerous centres from which the reports collected by the Provincial Medical Association show its simultaneous renovation. Influenza had appeared as early as November, 1836, in the middle and north of England; yet in the "Summary," added by the editor to the "Annals," p. 372, it is said of this epidemic: "commenced at Sydney in October, 1836, reached London in January, 1837." In all probability it had reached Australia from London long before, just as the present epidemic reached Egypt and India last year, and has twice extended from England to Gibraltar and Malta. Before the epidemic of 1847 the report of the Registrar-General for the latter part of the year 1846 showed a great increase of mortality from acute affections of the lungs in London; the spring of 1847 was unhealthy, and the diseases were of a similar character and equally fatal (Dr. Peacock's account). This points to a gradual increase in the number of individual attacks before the disease became widely epidemic.

Among attacks of this kind, presaging a renewal of the present epidemic, I may refer to three cases in one family, all with pneumonia, one of whom came under my own observation, reported this year in the *British Medical Journal* of March 7th by Mr. H. B. Collins, medical officer to the St. George's Dispensary; also, before this, I saw with Mr. Collins a child under his care with pneumonia, following upon influenza. A third case, seen in the same way, was the wife of a coachman. She was quite well while out shopping on Saturday evening, and felt neither fatigue nor chill. At 10 P.M. she was seized with sudden pains and a rigor; next day she had a temperature of 102°, with some congestion of both pulmonary bases. Much of this cleared up on the following day, when the temperature was 99° only. She remained in bed, but on the fourth day had a sudden relapse, with a temperature of 104°, vomiting, severe pain in the body, great depression, a semi-comatose hebetude, with dilated pupils, and some spasmodic contraction of the hands.

These symptoms subsided in the afternoon; the pulse was good, the respiration clearer. Next day, beyond some herpes of the upper lip, anorexia, and sparse râles on deep inspiration, very little but weakness remained. Complete convalescence followed after one slightly marked relapse, in which quinine was given with advantage. The rigidity of the arms and dilated pupil were such as described in an early case last year;[4] they point, I think, to congestion of the nerve centres, sometimes of much gravity, as a feature of the disease, and suggest a caution in the choice of remedies. In these cases only the simpler salines were given in the earlier stages. The three cases already referred to of pneumonia as a sequel to influenza, all in one family, throw some light on the instances of what was called "contagious pneumonia" reported during the winter; they had not the characters of acute lobar pneumonia, which is said to be sometimes epidemic.

One of the more recent cases under my notice further illustrates the similarity of the later with the earlier attacks of the present epidemic. On May 15th last an elderly lady, who had lived much in India, after two hot days in London and a morning at Exeter Hall returned to her home at no great distance early in the afternoon. The weather had suddenly changed, but she did not feel cold or tired. Next day she felt a chill, with soreness of the chest; on the 17th she had cough with fever, the latter increasing towards evening, and reached 104° on the morning of the 18th. The temperature subsided to 102° during this day, though the breathing was worse, and diffused sibilant rhonchi with prolonged expiration were heard, but no crepitation or local dulness was found over any part of the lungs. On May 20th there was more frequent cough but no expectoration, tongue with whitish fur, thirst, perspiration, great sense of weakness, but no pain. Pulse 100; respiration 30; temperature 102° in the evening. Liquid nourishment was taken frequently, and some stimulant given at regular intervals. In the next two days the heart's action became weaker and irregular, the cough and fever less. There was little or no expectoration; no delirium, but a gradually fading consciousness; death on the 23rd. I saw this patient only on the 20th, and considered the illness to be influenza, and not acute pneumonia, or a pulmonary attack from cold; for, first, instead of following at once upon the exposure, there was an incubation period of one day at least; second, the great and sudden rise of the temperature and the want of proportion between the fever and the local lesions. Dr. Burne says of the cases in June, 1831:[5] "There is also this circumstance peculiar in the attacks—namely, that the patient is not sensible of having taken cold, nor of any cause that can have produced his illness. The invasion does not depend upon cold, and though some may date the attack from a particular chill on exposure, this is rare compared with the number affected." He also says there is mostly abundant perspiration, but not much expectoration even where there is persistent cough. In other cases, he says, "the pneumonic symptoms are less urgent, while the pain and heaviness of the head, with the depression of strength and dulness of the sensorial powers, are greater than in the description above given."

The want of free secretion from the smaller bronchi obstructs the return of air from the alveoli of the lung, causing an emphysematous condition, with an undue resonance to percussion that obscures some of the signs of congestion, and leads to a false estimate of the degree of danger present; this condition in younger patients I have seen relieved by pilocarpine hypodermically or in small doses frequently taken until a flow of saliva with freer expectoration has been established, when plentiful diluents and some diffusible stimulants are advantageous. Some most severe and urgent cases of pulmonary seizures following influenza attacks in this last hottest week of June show how little the epidemic influence is dependent upon season.

I desire again to note the frequent occurrence of sore-throat with one day of high fever in connexion with cases of undoubted influenza. This has been noticed also by many of my medical friends, one of whom called this sudden form of attack "sore-throat with ephemeral fever," a term very like the "diary and decreasing fever" used by Dr. Glass in 1775. Sometimes the fever and tonsillitis have continued for several days, instead of subsiding on the third or fourth day as is seen with the follicular tonsillitis of most of these cases. Influenza has been endemic in England for more than two centuries under various sporadic forms; only at long and irregular intervals has it been widely epidemic.

Harley-street, W.

[1] Annals, p. 278. [2] Ibid., p. 286. [3] Ibid., p. 290.

[4] THE LANCET, vol. ii. 1890, p. 334.
[5] Annals, p. 279.

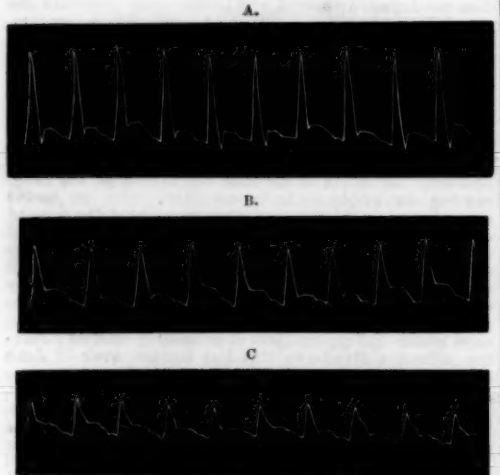
THE PRACTICAL ELECTRO-THERAPEUTICS OF GRAVES' DISEASE.

BY H. W. D. CARDEW, M.R.C.S.

(*Concluded from page 9.*)

I MAY here say that there are two points upon which I cannot offer any positive opinion. First, whether there is any advantage in applying the kathode to either the right or left side of the neck in preference. I have attempted to collect evidence on this point, but cannot say that my investigations show that there is any difference as to the results obtained with the kathode on either left or right side. Secondly, whether it is advisable to apply a very weak current to the lids when there is exophthalmos, von Graefe's or Stellwag's signs. No benefit was found in the cases under my notice. Other observers believe that it does good, and it can be readily applied by the patients; but, in my opinion, a much weaker current even than used in this method should be tried. It is a usual thing for patients to tell me that the application as described frequently diminishes the "feeling of tension in the eyes." A few warnings might be given here on some practical points. It is not advisable to set much store on the evidence of the pulse on the first occasion of seeing the patient, whether this is obtained by the digital or sphygmographic method. The "neurotic" and cardio-vascular symptoms are excessively increased by the ordinary excitement, anxiety, and fear attendant on the occasion. On finding the treatment so much less of an ordeal than anticipated, the fear and anxiety pass away to a certain extent, thus removing an accelerating cause of the frequency and force of the heart action. I have known the pulse-rate fall from 150 to 120, simply owing to this. Such a fall might cause one to over-estimate the influence of this method of treatment, if this fact were not noted. The sphygmographic evidence as to other conditions is equally misleading on this account. Even when patients are used to the treatment and the surroundings, on visiting me I let them rest for some time before noting the pulse-rate or taking tracings, so as to eliminate the effect of exercise. The accompanying tracings (Fig. 4) well illustrate this

FIG. 4.



Sphygmograms, from a case of Graves' disease, to illustrate the importance of eliminating the effect of rest after exercise in estimating the effect of this treatment. A, Taken immediately after the arrival of the patient, who had walked half a mile. B, Taken after fifteen minutes' rest. C, Taken after thirty minutes' rest.

as another cause likely to make us over-estimate the effects of this treatment. Sphygmographic evidence is rarely of use for estimating the pulse-rate per minute, unless the tracing paper were sufficiently long to register the tracing for that period. Neither do I find the rate taken for one quarter of a minute sufficient to estimate in many cases the average per minute. My experience is that in the large majority of cases in which the pulse-rate is rapid there is a slight irregularity in rhythm-rate demonstrated by the sphygmograms, where it can be proved not to have been produced by any variation of the rate with which the paper is propelled. In some it is so marked as to be detected by digital examination. With a rapid pulse a very small variation of the tracings recorded in five seconds would make a considerable difference if multiplied so as to give the rate per minute, and again a diminution of ten beats per minute from a high pulse-rate would show but a trifling change in sphygmographic tracings representing the pulse in five seconds. Thus if we ascertained by digital examination that the pulse-rate was 120 before and 110 after the galvanism, the difference shown by the tracing corresponding to five seconds would be 10 and 9⅛, an amount not noticeable, or scarcely so, without very careful examination. Now, the nearer the pulse-rate approaches the normal, the less the reduction of the number of heart-beats, and therefore the less appreciable the change of rate, as evidenced by sphygmographic tracings corresponding to five seconds. The pulse-rate per minute before galvanism 84, after galvanism 78, would, when noted for five seconds, be 7 and 6½. This is always supposing that any five seconds might be taken as corresponding to the rate per minute, which, as I have stated, should not be done.

Anyone watching this treatment at first might be discouraged by the relapses, small or great, occurring during the progress of the case without a word of warning. The patients are as a rule "neurotic" and exceedingly susceptible to very trifling impressions, which readily react, producing relapses varying in severity. Amongst the most common of these trifling causes I have found menstrual troubles, domestic worries, disturbed rest at night, digestive troubles, fright, and trifling "colds." Any of these and many others will send up the pulse-rate and increase the existing cardio-vascular conditions to a variable extent. It is advisable not to lay much stress on the day-to-day changes in the symptoms, but rather to take a general view at intervals, inquiring from their friends and themselves how they have been getting on during the intervals. I have frequently seen during the early part of the treatment a patient comparatively well one day with all the symptoms exaggerated the next, and again within a day or two comparatively well. I cannot too strongly emphasise the importance of recognising that neither day-to-day nor isolated observations should be allowed to prejudice either patient or doctor. With my own cases I ignore them, insisting on the recognition of the general improvement and the overlooking of the momentary relapses. I alluded previously to two cases in which no benefit was derived. They were both markedly hysterical women, who amongst other symptoms presented rapid heart with palpitation. They were both women of middle age, who had been under medical advice for many years. I believe such cases to be most unsuitable for this method of treatment. Faradaism, strong galvanism, or static electricity might do good in them; but, if so, I should prefer to regard the remedies as the scientific equivalent of the more simple moral remedies in vogue amongst the laity.

It would be of interest if one could speak positively as to the exact means by which this method of treatment brings about such good results. Neither our pathological knowledge as regards Graves' disease, nor the information to be derived from the researches of experimental physiologists on conditions artificially produced which resemble those of Graves' disease, is sufficiently definite to permit one to do more than advance theories, and I do not see that any object would be gained in attempting to formulate such theories. By existing proved laws of physics we know that the current will be divided amongst the tissues through which it passes in proportion to their respective conductivity. With the electrodes arranged as described, our anatomical knowledge leads us to suppose that, amongst other structures, the vagus and cervical sympathetic nerves, the spinal cord, medulla, and base of the brain are all included in the path of the current. Experimental physiology teaches the effect of direct or reflex stimulation of some of the nervous structures enumerated. With this knowledge countless theories have been constructed; and those interested in them will find them described and discussed in electro-therapeutical and other text-books. For my own part, I have used the treatment almost empirically, contenting myself with the fact that it must be through the nervous system that the good results are brought about] At

the same time I look forward to the day when pathology and physiology will be able to remove it from the realms of empiricism, feeling, however, that it has many other most useful therapeutical agents associated with it there.

In attempting to ascertain if there is any order in which the symptoms disappear under this treatment, the evidence is not very definite. In my own cases the following was the usual order of disappearance. Minor nervous troubles, depression, irritability, restlessness, and insomnia were the first to yield to the treatment. With these disappearing the general health improves, and the tremors, if slight, become less, or even disappear. In women where the menstrual disorder is slight this yields at an early period. When the tremors are very pronounced, and there is absolute amenorrhœa, these symptoms only disappear much later. The cardio-vascular symptoms then yield, and finally the ocular and thyroid conditions. With reference to the last two, when present together they may disappear together, or one before the other; and frequently one or the other, occasionally both, does not completely disappear, a fulness of the eyes or thickening of the thyroid region remaining as permanent traces of this disease. They were certainly the latest in my cases, but Chvostek considers the effect of this treatment more pronounced in curing them than that on the pulse-rate, which he found but slight. M. Meyer believes the contrary. Others range themselves on one side or the other. Seeing, however, that the cases of Graves' disease vary not only in the number of the usual symptoms present, but also in the relative severity of such symptoms as are present, one need not wonder that the order in which they yield to treatment is also variable. The treatment must be persisted with for many months, according to the severity of the individual case. Very light cases, which recover after about two months' drug treatment, would probably recover equally quickly under this treatment. I cannot speak from experience of these cases, though I hope that others will adopt the treatment and publish the results. All one can say definitely is that the treatment should be persisted with for at least two months after apparent cure, or, in such cases where the thyroid enlargement and proptosis do not quite disappear, until a reasonable time has elapsed after the cure of the cardio-vascular disturbance; not regarding any tendency to palpitation, unless excessive, as the remains of the affection, so much as a constitutional condition usually found to have existed some time before the commencement of the disease.

I am only able to describe a few cases in which this method (with self-application) was used for the purpose of clinical research. More cases have passed through my hands, but as various drug treatments were being carried out simultaneously with the electrical treatment, they would be useless as evidence of the efficacy of the latter. No drugs were administered with the exception of aperients taken occasionally when necessary, and bitter tonics for a few days occasionally when the appetite was bad. Exceptions will be mentioned in describing the cases. They had all undergone treatment with drugs before coming to me. They followed their ordinary avocations, so that rest cannot be claimed to have done much for them. The patients were sent to me by Dr. A. E Sansom, Dr. James Anderson, Mr. Mark Hovell, and Mr. C. V. Burgess, to whom I now beg to tender my thanks. The following cases are reported up to the end of February, 1891.

CASE 1.—Unmarried female, aged twenty-eight; governess in private family. Symptoms when first seen by me in April, 1890: Rapid heart (pulse usually about 100); frequent palpitation; goitre (double) moderate in size, soft, thrill with murmur; exophthalmos (double) moderate in extent; von Graefe's sign; lids swollen and œdematous; tremors of hands &c.; dry hacking cough; increased pigmentation of naturally pigmented spots; occasional hot flushes, profuse sweats, and polyuria; catamenia scanty, but regular as to time. Is depressed and irritable; disinclined for exertion. Sleeps badly, waking about 3 A.M., and unable to get to sleep again. Commenced in January, 1888, with palpitation and pain in the heart on witnessing an attempted suicide. Goitre noticed in January, 1890; exophthalmos in March, 1890; no date assigned to other symptoms. Treatment commenced on April 28th, 1890, pulse-rate being 108. At the end of July she told me that the pulse-rate was usually about 80; that she was free from palpitation. The goitre was hard, non-pulsatile, but about the same size. Exophthalmos very slight; von Graefe's sign still present. All other symptoms absent; general health excellent. Slight relapse in September, the treatment having been irregular from the end of July. Advised continuation of treatment. At the end of December, 1890, she was free from all symptoms. The pulse-rate was as a rule 75; the only trace left was a thickening in the thyroid region, and the appearance of Stellwag's sign on excitement. This condition I had not found before.

CASE 2.—Male, unmarried, aged forty-three; clerk. Symptoms when first seen: Rapid heart; occasional palpitation; exophthalmos (double) excessive; von Graefe's sign; no goitre, but vascular excitement present in the vessels of the neck; tremors slight, worse when tired; occasional polyuria; constipated. He states that he is not irritable, excitable, depressed, or listless. He is markedly restless; anæmic. Had been a commercial traveller. Five years ago he noticed that hurrying produced palpitation, which lasted some little time. This condition got worse, and about fifteen months ago he noticed that the heart-beats seemed always abnormally fast, becoming distressing on trifling causes. Exophthalmos noted at end of 1888. During a holiday it disappeared, but recurred on resuming work. Treatment commenced in May, 1890. Pulse-rate about 100 to 110. At present his pulse-rate is about 80; no palpitation for some time. The exophthalmos is much less, but has not disappeared; it becomes worse when his work (bookkeeping) is heaviest. He has had two prolonged relapses, owing to violent and excessive physical exertion; but since recognising the incompatibility of this with his condition there has been steady improvement as regards the cardio-vascular conditions, the eye symptoms fluctuating as mentioned above.

CASE 3.—Unmarried female, aged thirty; housework. Symptoms when first seen June, 1890: Rapid heart, pulse being as a rule about 120 to 130; frequent attacks of palpitation; goitre (double), soft, thrill, and murmur; exophthalmos (double) moderate; von Graefe's sign; tremors of hands occasionally so bad as to interfere with writing; constipated, perspires freely, irritable, depressed, languid; sleeps badly, chiefly owing to palpitation; catamenia irregular and scanty; œdema of ankles; anæmia, puffiness of eyelids; urine normal. The rapid heart and palpitation first noticed in June, 1889, after nursing a number of people. In November of that year goitre noticed by a medical man attending her. No dates can be assigned to other symptoms. Treatment commenced June 21st, 1890. At present the pulse-rate is about 70 to 80; no palpitation. Goitre quite gone on right side; slight thickening (no thrill or murmur) on left side; exophthalmos slight; no von Graefe's sign; Stellwag's sign may be produced by causing patient to stare for a few moments; no tremor; sleeps well; general health good; catamenia regular and proper in amount; bowels regular; œdema of ankle disappeared.

CASE 4.—Married female (no children or miscarriage); housework. Symptoms when first seen by me, June 1890: Rapid heart; pulse about 120, has been over 150; occasional attacks of palpitation (Dr. James Anderson, whose patient she is, finds mitral regurgitation); goitre (double) moderate, soft, thrill, and murmur; tremors very marked, so much so that it was very difficult to obtain sphygmograms; no exophthalmos or other ocular symptoms. Very restless appearance; is not irritable or depressed. Excessive perspiration, alternating with hot flushes. Very thin. Face anxious and pinched. Catamenia regular until twelve months ago, when she missed for seventeen weeks, but for about two years previously to that had been prolonged and copious. Since they returned they have been even more copious and prolonged. (Menopause, fibroids of uterus?) The force and rate of heart-beat is greatly increased during the menstrual period. About fourteen years ago occasional palpitation commenced, the patient feeling at that time nervous, languid, and easily tired. There have never been any ocular symptoms. It is doubtful when the thyroid enlargement and tremors commenced. She came under the care of Dr. James Anderson in the latter part of 1888, and has been under observation ever since. I find from his notes, which he kindly put at my disposal, that she had undergone many marked variations, improving somewhat and then relapsing. Treatment commenced in June, 1890. She derived much benefit for the first few weeks; then came a violent flooding, causing marked recurrence of the symptoms. It became necessary to combine with the electrical treatment administration of drugs. This has continued since with the same results as before, improvement ending

in a relapse when the flooding occurs. I think this case is an excellent illustration of the fact that electricity, like other therapeutical agents, meets with failures, especially with such complications as the change of life and perhaps fibroids.

CASE 5.—Unmarried female, aged twenty-four; engaged in housework. Symptoms when first seen: Rapid heart; pulse-rate varying from 105 to 120; frequent distressing palpitation; exophthalmos (double) moderate; von Græfe's sign; Stellwag's sign most marked. (The case was shown by Dr. Sansom at the Medical Society. Goitre (double) moderate; larger on left side; tremors of hands so marked that no useful sphygmograms could be obtained; constipated; perspires profusely. Very restless and excitable. Not irritable or depressed. Sleeps badly. Increased pigmentation of normally pigmented parts. Absence of catamenia for eight months. The patient has been very hard worked for eight years in managing a coffee-shop. Her mother died in 1887, leaving two children aged respectively five and three; her other anxieties were considerably added to by the care of these. Has always been excitable. Palpitation and rapid heart first noted early in 1887; did not give her much trouble until the commencement of 1890, since when it has been getting worse. Eye symptoms first noted in February, 1890; she states that the left eye used to be the worst. Goitre noticed when first seen by Dr. Sansom. Tremors only noted by her at the same time. Profuse sweating noticed toward the latter part of 1889. No dates could be assigned for other symptoms. Treatment commenced on Oct. 15th, and continued until Jan. 3rd. At that time the pulse-rate was about 80; no palpitation or tremors. Eye symptoms about the same. Only slight thickening in region of thyroid. I saw her on Feb. 5th, 1891, and noted as follows:—No treatment since Jan. 3rd, 1891. Has been living at home since then, helping in the management and work. Pulse-rate 80. No thyroid enlargement or tremors; perspires but little. Restlessness quite disappeared. General health good, and in excellent spirits. Catamenia returned last month for the first time since January, 1890.

In addition to these cases, one patient with rapid heart (130 to 150), violent palpitation, double goitre and exophthalmos with von Graefe's sign and Stellwag's signs, excessive tremors, characteristic diarrhœa, sweating, and other minor nervous symptoms, was much relieved after some two months' treatment; the average pulse-rate having fallen below 100. I do not give full details of the case, as she passed from under my observation and doubtless suffered a relapse unless further treatment were undertaken.

In cases of rapid heart, such as described in Dr. Sansom's oration to the Medical Society, this treatment cured one case and gave great relief to another. Such cases are, however, so rare that my experience is limited to these two; but it would be of much interest if this treatment could be tried in that class of cases. In the case described by me as cured, one of the most distressing symptoms was violent palpitation and pain in the cardiac region at night. I was assured by both himself and his relatives that a few minutes' application soothed this, and enabled him to sleep comfortably in a very short time.

In conclusion, I would ask those who try this method of using electricity as the therapeutical agent to do so in several cases before forming an opinion. If the first were very suitable or equally unsuitable, it might arouse exaggerated approval or condemnation. It is, like all other therapeutical agents, liable to failure, and solitary cases should not be regarded as sufficient evidence. I believe that by using electricity in this method we have a therapeutical agent powerful to do good in the great majority of cases of Graves' disease. Such cases as fail to be benefited by it are unfortunately extremely unlikely to derive much benefit from any other therapeutical agent. Its advantages are that it has been proved to be successful by myself and others in cases where everything else has failed. It is less expensive than drugs; it can be carried out by patients equally readily; where a patient is unable to be seen regularly, it can be left in his hands with much more safety than continued doses of digitalis and belladonna. Its disadvantages are: 1. The risk of the battery getting out of order; this may be minimised by good workmanship and proper instructions to the patient. 2. The general belief that if electricity cannot cure in a month it can never cure; this should be settled as incorrect from the first. 3. The discomfort and trouble, which are so slight that patients overlook them. I trust that this paper may induce others to try this treatment, so that more evidence may be obtained, particularly as to the failures. With most therapeutical agents one is content with a percentage of good results. Unfortunately with electricity there is a demand for it to cure all cases; and it would therefore be useful if any law could be formulated as to what particular class of cases suffering from Graves' disease obtain no relief from this treatment.

[*Errata.*—In the previous part of this article, published last week, fortieth line from the top of the second column of page 8 and the sixth line and thirteenth line from the top of the first column of page 9, for "voltmeter" read *voltameter.*]

Harley-street, W.

INFLUENZA AND EAR DISEASE IN CENTRAL AFRICA.

BY JOHN BOWIE, M.B. EDIN.

IN so far as I can ascertain by carefully questioning the natives, it would seem that influenza has never before appeared in this part of Africa in the epidemic form, at least never within the memory of the oldest native inhabitants. Native testimony may seem to be a very slight foundation for such a supposition, but it is really of very considerable weight, as the natives are keen observers of disease, especially of epidemic disease. They can, for instance, readily distinguish between true small-pox and even bad cases of chicken-pox (not always an easy matter, as adult natives often take chicken-pox pretty severely); they have separate names for each, and know their characteristics well. When the influenza appeared the natives were much frightened, and all said "this is a new disease; this is a white man's disease, and not one of ours." Occurring in this far away region and amongst a primitive people, it may not be out of place to sketch briefly the apparent route of travel of the disease and the types observed in the epidemic.

Blantyre is a Scotch Mission Station and small colony on the Shiré highlands of East Central Africa; it is on the high road to the Great Lakes, and is about 100 miles south of Lake Nyanza and about 300 miles from the coast. There are two main routes from the coast. The easiest one, and that almost always followed by Europeans, is the water way from Quilimane up the Zambesi and Shiré rivers to Katunga's Station (within fifteen miles of the Murchison cataracts); from Katunga's Station about thirty miles of hill have to be climbed, and then the plateau is reached, which stands at an elevation of about 3500 feet above the sea. The second route is the overland one from Quilimane, going north-west, and passing Mount Milanje. This route is a good deal shorter than the water way, but is not nearly so convenient, and is used only by Arab and native caravans. For some time before the appearance of influenza, during its stay, and for some time after its disappearance from this neighbourhood, the wind was blowing from the S.E.—that is to say, the wind was blowing almost direct from Quilimane to Blantyre. Influenza was, I believe,[1] prevalent at Cape Town during February, 1890, but although steamers from Cape Town touch at Quilimane every month or six weeks, it was not till the end of July that influenza became epidemic at the latter port. From Quilimane the influenza followed the more usual route up the Zambesi and Shiré, the villages all along the banks suffering severely. Towards the end of August it had reached Katunga's Station, the final port of the small steamer which runs up and down the Zambesi and Shiré. In the first week of September three girls came from Katunga's Station to reside with us at Blantyre; these girls slept in the girls' dormitory, a detached single-room building, in which between fifty and sixty girls sleep. On Sept. 11th the three girls who had come from Katunga's Station were down with influenza; on the 15th two-thirds of the girls in the dormitory were attacked; on the 16th most of the remaining third were down; on the 17th the disease made its first appearance amongst the boys of the mission (the boys' dormitory is only about thirty yards from the girls'). It then spread to all the boys and all the other members of the mission. The Europeans first attacked were those who

[1] Clemow, THE LANCET, April 5th, 1890.

had most communication with the sick. Round Blantyre Station there are many native villages, the nearest one being only about a quarter of a mile distant; free daily communication takes place between Blantyre and most of the villages. I watched the villages closely, and caused careful inquiries to be made for any cases of influenza, but it was not till ten days after its appearance at Blantyre that the villages became attacked. It was a month before the disease reached Zomba and Domasi, places forty and fifty miles distant from us. I made inquiries regarding the villages on the direct overland route from the coast, and found that it was some time after its appearance at Blantyre that any cases occurred in these villages. I could get no information about the villages beyond Mount Milanje, which is fifty miles from here; but between Blantyre and Milanje the disease was distinctly traced as proceeding from Blantyre, the disease thus passing against the wind and to the coast, and not with the wind and from the coast. I also made inquiries regarding the villages for twelve miles on the road between Blantyre and Katunga's Station—the road by which the sick girls came, the direct route between us and the Shiré river, and the route over which any column of germ or other poison-laden air passing between the river and Blantyre would almost of necessity travel. In all these villages I found that the influenza appeared from a fortnight to three weeks later than at Blantyre. It seems, therefore, that the influenza preferred to travel the longer but more easy route by water than to go the shorter overland route as the crow flies and as the wind blew—in other words, the epidemic followed the route of the greatest traffic, and not the most direct route.

From the above circumstances, from the fact of the disease occurring first in the girls from Katunga's Station, then in the girls occupying the same room, then gradually spreading to the other members of the station, and from the fact of its being limited to the station for ten days, it would almost seem as if the girls had brought the disease with them from the river, and had spread it amongst the others. Indeed, everything seems to point to personal and not to aerial conduction. If the disease be due, as many hold it is, to some peculiar and unexplained meteorological change, would such a change be likely to jump twelve miles of villages on its path, land itself at Blantyre, and be ten days before affecting the air a quarter of a mile distant? Presuming that the disease came with the three girls from the river and spread from them, we may next ask in what manner did it spread. Did the poison reproduce itself in their persons, and from them by mediate or immediate contact infect others? or did the poison cast off by the sick reproduce or develop itself in the air or soil and then infect others? The question is one which it seems impossible to answer, but I may state that the girls' dormitory is floored with hard brick tiles with a glossy surface; the walls are well plastered with smooth hard plaster; the girls sleep on mats made of split cane or rushes, having a smooth polished surface; three or four large fires burn all night. The house is thoroughly swept out every day; the soil for many yards outside the house is at this dry season as hard and as dry as bricks. In the house there seems no likely spot on which germs could settle and find sufficient moisture (presuming they require it) and other material on which to flourish; yet the marked manner in which the girls were attacked before the other members of the station would seem to point to either direct communication from the sick girls, or to a development of the poison in the air or building of the dormitory; because had the poison developed in the soil or air outside the house, then from the position of the house all the other members of the station were as liable to early infection as the girls.

The markedly predominant type out here was the respiratory. Along with headache, pain in the neck, back, and limbs, fever, &c., there was generally more or less cough, sometimes a laryngo-tracheal cough unaccompanied by any physical signs, more commonly a true pulmonary cough, accompanied by bronchitic sibili and moist crepitations. In many cases (4 per cent. of the cases under my care) there was inflammation of the lung, the symptoms in almost every case being rather those of catarrhal than of croupous pneumonia. In no case observed amongst the natives was there marked coryza or injection of the eyes, though these symptoms were present in several of the cases occurring amongst the Europeans. The marked predominance of the respiratory type in the epidemic out here is of considerable interest, as the natives do not suffer much from lung affections. Ordinary catarrh, bronchitis, pneumonia, and phthisis may be said to be really rare diseases, at least compared with their frequency at home. There was no apparent cause for lung complications, as the weather was mild; besides, the lung of the native is not a weak point ready to be attacked on any falling off in his health or on any exposure during sickness—in fact, the lung with him is one of his healthiest organs. The number of cases of pneumonia and bronchitis was immense as compared with the ordinary average even during the coldest and worst season, and would lend some support to the theory that the lung affection is a localisation of the influenza poison, and not a mere complication. The intimate relation between influenza and pneumonia is also shown by the fact that in every epidemic, occurring at all seasons of the year, pneumonia has been a common accompaniment. Of some interest in the same relation is the isolation by Weichselbaum, Levy,[2] Netter,[3] and others of Fraenkel's diplococcus from the discharge in cases of otitis during influenza.

A marked feature in the epidemic out here was the large number of cases which were complicated by disease of the ear. I could not get statistics of cases occurring in the various villages; but of 150 cases of influenza in Blantyre station proper, thirteen were complicated by otitis media. In all of the cases except two the disease was limited to one ear; eight of the cases went on to perforation of the membrane, the discharge being serous or sero-purulent. In one there was hæmorrhagic discharge; in one of the cases which did not go on to perforation there was great injection of the membrane, with here and there small ecchymoses; and a large blister containing blood-stained serum occupied nearly half of the membrane. Though containing a little blood, the blister was not one of that purely hæmorrhagic type which Dreyfuss[4] mentions as occurring in several cases of otitis during influenza. Of these thirteen cases nine made a rapid and good recovery; three proved fatal from other complications unconnected with the ear trouble; one case has left a persistent and annoying tinnitus. This last case has, I think, in addition to catarrh of the middle ear, been complicated by a simultaneous affection of the labyrinth. The feeling of tension in the ear was more marked than in a mild case of catarrh, the tinnitus distressing from the very first, continually altering though never disappearing, and persists now when the hearing in the affected ear is as acute and apparently as perfect as in the healthy ear. The perception of musical notes as tested by the piano seemed unaltered (the case occurred in a European and not in a native); the tuning fork showed no nerve deafness. There is a family history of gout, but the patient is only thirty-three years of age and shows no sign of gout in himself. I unfortunately did not examine the pharynx at an early stage of the influenza in all the cases which became complicated by ear trouble, but in those which I did examine early and in later examinations of the others I found no sign of inflammation.

Disease of the ear has been long noted as a complication occurring in the various epidemics of influenza. Thus it seems to have been noted by Boeckel in 1580, by Fuster in 1729–30, and by Ozanam in 1835.[5] During the present epidemic the complication has been mentioned and studied by many French and German writers—amongst others, by Schwabach,[6] Dreyfuss,[7] Levy,[8] Nimier,[9] Féréol,[10] and Hermet.[11] In works by English writers I have found little mention of this complication. The number of cases occurring here amongst the natives is, I think, of peculiar interest, as the natives are very seldom affected by inflammation of the ear. Amongst many thousand patients I have had a remarkably small percentage of ear cases, just a fraction of what a general practitioner would get at home. The small number of cases is a reality, and does not arise from many cases escaping notice. Deafness to a native is something peculiar and bad, and he comes readily for relief; and I have also always been on the outlook for ear disease amongst them. Perhaps this immunity may be partly explained by the freedom of the natives from affections of the throat, catarrh

[2] Berlin. Klin. Woch., Feb. 17th, 1890.
[3] Gazette Hebdomadaire, March 8th, 1890.
[4] Berlin. Klin. Wochen., Jan. 20th, 1890.
[5] Nimier: Le Mercredi Médical, March 12th, 1890.
[6] Berlin. Klin. Woch., Jan. 20th, 1890.
[7] Ibid. [8] Ibid., Feb. 17th, 1890.
[9] Le Mercredi Médical, March 12th, 1890. [10] Ibid., Feb. 26th.
[11] Gazette Hebdomadaire, March 8th, 1890.

of the pharynx, tonsillitis, follicular or suppurative, being rarely seen.

In our immediate neighbourhood and within a radius of twenty miles the epidemic has on the whole been of a severe type. It is impossible to give statistics, as the number of the population is not known; but from what I have seen and heard I think I am within the mark when I say that eight per 1000 of the population have died from it. Though most of the fatal cases occurred in the very old, yet the young and vigorous seemed to suffer more here than they did in Europe. The three deaths which occurred out of the 150 cases in the station were all of young and strong people. Two of them died from inflammation of the lungs; the third case was only complicated by very slight bronchitis, the other symptoms being those of a severe fever of a typhoid type. This case lasted three weeks, the temperature during the last six days reaching 106° every day, and remaining between 104° and 106° constantly. Marked prostration was the rule, the heart being left very weak in many cases.

As regards the treatment there is nothing to say, except that in several cases with high temperature antifebrin seemed to have complete though temporary command of the fever. In one case I repeatedly reduced the temperature 4° and 5° within an hour by a single dose of antifebrin; in another case a single dose reduced the temperature 5° in an hour and three-quarters. In malarial fevers I have many hundreds of times had marked and rapid reduction of the temperature by antifebrin or antipyrin, but never such a rapid reduction as I obtained in many of the cases of influenza. Quinine seemed to have no influence on the influenza. This epidemic in Africa is, I think, also of interest in relation to the close connexion which many say exists between influenza and malaria,[12] Wolkmann[13] even goes so far as to call influenza an intermittent fever with a spasmodic cough. Although Africans as a race are not exempt from malarial infection, yet the tribes which have lived for generations in a markedly malarial district do acquire a very distinct, though perhaps not perfect immunity from it. This is the condition of the natives living along the banks of the Zambesi and Shiré. Were the poison of influenza the same as that of malarial fever, it is extremely improbable that it would attack these natives in the wholesale manner it has done. Notwithstanding all the late bacteriological and other investigations, we as yet know so little about the poison (more probably poisons) of malarial fevers, that to say the influenza poison is clearly related to it is simply to say that both are yet amongst the things unknown. The clinical resemblances between the two (as observed out here in many hundreds of cases of both diseases) seem to be no closer than the resemblances between malarial fever and any short-lived fever with no distinct localisation. I watched carefully for intermissions, and cannot say I found a single case. In several there was a relapse, but we could not call this an intermission in the sense used in malarial fever. Even the remissions were not marked, not more marked than we find in fevers generally, and not so marked as in most cases of typhoid fever.

Blantyre, East Central Africa.

NOTES ON HYDROCHLORATE OF OREXIN.

By JOHN GORDON, M.D.,

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THE hydrochlorate of orexin, the full chemical name of which is hydrochlorate of phenyl-dihydro-quino-azoline, was introduced by Professor Penzoldt of Erlangen some time ago as a pure stomachic, for which he claimed that it increased the appetite, aided digestion, and stimulated absorption of the products of digestion. It occurs in colourless crystals which are to a certain extent soluble in water. The taste is sharp pungent, and somewhat acrid, giving a slightly burning sensation to the tongue. The drug may be given either well diluted in water or made into pill form with any of the ordinary excipients, and can also be given between thin slices of bread and butter or in the form of wafers. The adult dose was stated by Penzoldt to be from three to five grains. The cases here recorded are of children to whom the drug was given in small doses and simply dissolved in water. Little or no objection was offered by the children to its administration. Most of the cases selected were suffering from some form of tubercular disease with anorexia (loss of appetite) as a marked feature. The patients too being children who had no idea for what purpose the drug was given, there was little or any chance that its probable effect could be anticipated. A number of the patients who had been inmates for some time were under observation in the wards of the Sick Children's Hospital, and of these careful notes were taken by the house surgeon, Dr. Richard Eden.

The following five cases are typical of about ten others in which the drug was exhibited.

CASE 1.—P. M——, aged three years, an extremely anæmic and wasted boy, who had on admission an umbilical fistula, which had discharged fæcal matter since birth. The discharge was very offensive, dark-brown in colour, and thin in consistence. The quantity varied, but it was never very great. His pulse was irregular, feeble, and at times intermittent. He vomited frequently after meals—his diet consisted of milk with lime water, or soda-water in small quantities—and never showed any sign of appetite, but lay quite listless.—March 20th: Orexin (an eighth of a grain), three times daily, dissolved in water, was ordered to be given before meals.—22nd: The discharge from the fistula was grass-green in colour, more copious, and of similar consistence to the previous brown discharge. A desire was expressed for food, and signs of improved nutrition appeared in the colour of the face. The pulse was regular and stronger.—28th: The signs of improvement continued. The grass-green colour of discharge did not reappear, and though the discharge continued it appeared to be less irritant. The orexin was now stopped, the appetite being good. Patient was able to take bread and milk in fair quantities, and there was no vomiting.—April 10th: Appetite had become gradually less, face much paler; but there was no vomiting, and the pulse continued regular.—13th: Orexin in quarter-grain doses was ordered as before.—30th: Appetite good, no return of vomiting, and pulse quite regular. Patient still anæmic, however, and there is a tendency to increase in the discharge. The green colour already noticed has occasionally appeared since.

CASE 2.—J. T——, aged eight, suffered from enlarged and suppurating glands of neck, with discharge of pus into the mouth. Tongue slightly furred, constipation and loss of appetite marked.—March 26th: Orexin in quarter-grain doses was ordered three times daily in water before food, and the diet was restricted.—30th: Diarrhœa with very dark motions came on a day after giving the orexin, and a dose of senna mixture was given to clear the bowel. Appetite improved.—April 3rd: Appetite much improved. A teaspoonful of cod-liver oil, with stout, able to be taken twice daily.—10th: Orexin stopped; condition of patient improved steadily daily. The diseased glands were in much the same condition, and the discharge into the mouth continued.

CASE 3.—J. P——, aged eleven years, a wasted, anæmic boy, suffering from hip-joint disease with extensive waxy disease, hectic temperature, and feeble pulse. One leg had been amputated a short time before for tubercular joint disease. Tongue pale and flabby; no desire for food. Stimulants in the form of port were given frequently.—April 4th: Orexin in quarter-grain doses was ordered three times daily in water before food.—10th: Appetite improved, bowels more regular and no diarrhœa.—30th: Appetite very good, general condition greatly improved. Patient apparently laying on flesh.

CASE 4.—A. B——, aged two years, a thin strumous child with mastoid abscess and otorrhœa, fretful and peevish, and with no desire for food. Orexin in quarter-grain doses ordered, appetite soon improved, and patient seemed more happy. Disease continues but there is no vomiting or diarrhœa. This case is still under observation.

CASE 5.—J. V——, aged two years, a rickety boy with enlarged cervical glands, furred tongue, bowels constipated, marked loss of appetite. The mother alleged that the child would hardly take food of any kind.—March 8th: Orexin in one-sixth-grain doses was ordered three times daily in

[12] Gazette Hebdomadaire, Feb. 8th, 1890. M. Lieven: Le Mercredi Médical, Jan. 8th, 1890.

[13] Quoted by Spillman, Gazette Hebdomadaire, Jan. 11th, 1890: "Il considère la grippe comme un fièvre intermittente quotidienne accompagnée de toux spasmodique."

water before meals.—10th: No apparent change.—14th: More inclination for food manifest.—16th: Marked increase of appetite; child now quite anxious for food, bowels more regular, and tongue rather cleaner.—20th: Improvement steadily maintained. Orexin stopped, and child put on cod-liver oil with compound syrup of the phosphates, both of which were taken without apparent gastric disturbance.

It would thus appear that orexin is in the loss of appetite concurrent with tubercular disease a valuable stimulant. The power of stimulating absorption of the products of digestion claimed for it seems to be merited, for under its use, as a rule, the tongue became less furred, and the constipation was relieved. Though, so far, these observations cover only a limited field, still the indications are that orexin is worthy of receiving an unbiased trial in suitable cases. It certainly cannot be claimed that the repertory is already too well-stocked with remedies for this special purpose.

Aberdeen.

DEATH UNDER CHLOROFORM; WITH REMARKS.

BY E. C. KINGDON, M.B., M.R.C.S.,
OPHTHALMIC SURGEON, CHILDREN'S HOSPITAL, NOTTINGHAM.

PRISCILLA D——, aged one year and seven months, had been an ailing child since birth, and for many months was treated as an out-patient at the General Hospital, Nottingham. She was admitted to the Children's Hospital under the care of Dr. Marshall on Jan. 31st, 1891, suffering from malnutrition. In the course of a few days noma of the hard palate, which rapidly spread to the upper lip, made its appearance, and on Feb. 7th I was asked by my colleague, Dr. Marshall, to administer chloroform, preparatory to his applying nitric acid to the diseased part. Being aware of the patient's serious condition, I gave the chloroform with extra caution, employing a Guy's mask held about half an inch from the face. The anæsthetic was taken quietly and well, insensibility being produced in four minutes; the pupils were equal and moderately contracted. Just as the nitric acid was about to be applied I noticed that the temporal pulse was more feeble, and immediately the respiration became slower and sighing in character, with slightly increased pallor of the face. Artificial respiration was promptly commenced before the natural breathing had ceased, which, however, occurred in a few seconds. The pulse was by that time imperceptible at the wrist, and remained so to the end. In about ten minutes' time three or four voluntary gasping inspirations were made, followed in a couple of minutes by three or four others. No further efforts to breathe took place. Artificial respiration was carried on uninterruptedly for half an hour; in addition, galvanism, hot fomentations, and elevation and friction of the lower extremities were employed; but all proved futile. No post-mortem examination was made. There was no evidence of cardiac disease during life.

Let me preface my remarks on the above case by saying that for the last six years I have been in the habit of constantly administering anæsthetics—in all nearly 1600 times. Of these 1600 cases it has been necessary to employ artificial respiration on four occasions. The operations were: (1) circumcision, the anæsthetic used being chloroform; (2) vesico-vaginal fistula, chloroform; (3) ankylosis of hip-joint, chloroform; (4) inguinal colotomy, alcohol, ether, and chloroform mixture. All four cases breathed naturally after a few minutes, and in none of them was there any failure of the pulse; thus confirming the opinion of the Scotch medical schools—viz., "that the respiration always fails before the pulse, and that if the breathing is closely watched the pulse may be disregarded." I have lately become convinced that such teaching is at any rate an erroneous one if the chloroform is being administered for the treatment of nævi by electrolysis. During this operation it is a common occurrence for marked enfeeblement of the pulse, with slowing of the respiration, to take place; the effect, however, on the pulse and respiration being in direct proportion to the strength of the electric current employed, but the main effect is usually on the heart. I have noticed the pulse disappear at the wrist, though the breathing continued. I am indebted to Dr. Marshall for the observation that this danger is most to be feared if the nævus be situated on the scalp. If, then, failure of the heart's action is the thing most to be apprehended during anæsthesia for the electrolysis of nævi, may not such a danger be occasionally the primary one, when anæsthesia is induced for other purposes, the death of the above patient being a case in point? There is little use in publishing an account of a death occurring under anæsthesia unless the case be examined from many aspects. 1. Children suffering from noma occasionally die suddenly. 2. The patient was one whose natural feebleness was much increased by the depressing nature of her complaint. It was improbable that she would have survived more than three days. The arrest of the gangrene was her only chance of recovery. 3. An anæsthetic being necessary, was it right to use chloroform? Knowing the comparative safety of chloroform for children, I elected to use it rather than ether, on the ground that cases of noma usually die from septic pneumonia, and that ether producing a free flow of saliva over the slough, together with the irritation that ether causes to the respiratory track, would increase the tendency to pneumonia. I am conscious that it was an omission not to have given brandy immediately before the operation, but the child had been fed with small quantities of warm nutritious food every half hour. 4. Was the mask employed a suitable one? To this I must answer, Yes. The chloroform was freely diluted with air, the mask not being applied close to the face, and at no time did the child receive an extra dose of chloroform. The mask is one which has been used for many years at the hospital with success. Personally I usually employ a small folded towel or Lister's method, but have also frequently used the mask. It matters little what particular method be adopted if attention be not paid to the essential points of successful administration—viz., a supply of chloroform vapour of constant strength, freely diluted with air, and the quantity regulated according to the depth of the patient's respiration.

Nottingham.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE "STERNAL SYMPTOM" IN BREAST CARCINOMA.

BY HERBERT SNOW, M.D. LOND. &c.,
SURGEON TO THE CANCER HOSPITAL.

UNDER the above title in THE LANCET of March 7th and 14th last was described a painless and slowly progressive prominence of the sternum between the second costo-sternal articulations, consecutive to carcinoma of the female breast. This is a common physical sign of latent marrow deposit; it is most conspicuous in broad-chested women; after an operation is often the sole objective indication of malignant disease; and, in the end, is invariably followed by other symptoms of "recurrence." It is of considerable practical value as showing that no complete immunity can be hoped for after removal of the affected organ. It is found where there can be no suspicion of any direct infiltration; it rarely gives rise to an actual tumour-formation. The following, however, is one of those exceptional cases in which a distinct new growth eventually appeared at this particular spot after a long interval of seemingly entire freedom from the cancerous malady.

Mrs. —— of Cambridge, seen in consultation with Mr. T. Lucas, had her left breast excised for scirrhus by a very eminent local surgeon in 1884. She remained well to all outward appearance till May, 1890, when a prominent tumour grew from the sternum at the situation here indicated. This quickly ulcerated. In November last a round sloughy sore, three inches in diameter, with livid border and elevated edges, occupied a large part of the bone. The former site of the left breast was occupied by a perfectly healthy scar; there had been no reappearance in the soft parts of the chest wall. The left axilla contained a lymph gland slightly enlarged; this deposit was apparently

secondary to the sternal new growth. There were also signs of extensive visceral deposit; "rheumatic" pains in the loins and other indications of marrow infection co-existed. As the patient had not been under the continuous observation of her present medical attendant, it was not possible to ascertain whether any undue prominence of the sternum had been present before the development of the tumour. There can be little doubt, however, that this would have been found if sought for.

Gloucester-place, W.

SUICIDAL TENDENCY DURING AN ATTACK OF INFLUENZA; CUT-THROAT AND FRACTURED SKULL; RECOVERY.

BY A. G. CREAGH, M.R.C.S.

SEVERAL instances of suicidal and homicidal impulses having been mentioned as occurring during the influenza epidemic of the past year, I think the following extracts from my case-book may be of interest to some of the readers of THE LANCET. On the evening of May 7th I was called to a patient suffering from influenza of the pulmonary type, prevalent at the time. The man, aged twenty-eight, was complaining of headache and pleuritic pain at the right base and inferior mammary region of the right side. Temperature 102·5° F. On the following day the temperature had risen to 104°; headache better; no cough. On the 9th the temperature was 103·5°. The temperature at 10 A.M. on the 10th was 101·5°; no signs of delirium or history of previous light-headedness, the patient conversing rationally. At 3.30 P.M. I was called and informed the patient had cut his throat. I found him in the kitchen seated on the ground, bleeding from throat wound, which had slightly severed the thyro-hyoid membrane. The gash, which had been inflicted with a carving-knife, extended about two inches and a half across the throat, the wound in the larynx admitting a director. I inserted a stitch at each angle of the wound, and bound up the patient's head, having been informed that he had struck his head with a round stone, which I was shown. I did not pay much attention to a small scalp wound on the right side of vertex. The mental condition of the patient, rendering him inclined to be troublesome, absorbed a good deal of attention. The man was removed to bed, where he suffered from four attacks of spasm of the glottis, probably caused by blood trickling into larynx, the first following immediately on the introduction of a director into the laryngeal wound. The last attack was very severe, the patient being on the verge of death from suffocation. The pulse getting weaker and the patient being in a sinking condition, I took off the head bandages and re-examined the scalp wound, and found there had been considerable loss of blood, compresses and bandages being saturated. On introducing a finger into the scalp wound, over the front and lower portion of right parietal, I found the skull to be fractured and depressed in two places, where, on investigation, we found he had struck himself with the claw end of a heavy hammer, blood welling up at the bottom of the wound. As there was but little depression of fractured portions, I decided not to trephine or tamper with the wound if the bleeding could be stopped; the sinking condition of the patient being exceedingly unfavourable to operation, and no compression symptoms being present. The hæmorrhage was restrained by applying graduated compresses.—May 11th: I find the patient rallied from threatening syncopal condition, and there is a tendency to delirium of a nervous or irritative type. Towards the evening this increased and the patient had to be restrained with handcuffs fastened to a leather belt around the waist. At 2 P.M. one minim of croton oil had been administered, followed by five grains of subchlorate of mercury. Of the latter, two grains and a half were to be given every four hours, with cold applied to the head. The dressing was changed.—12th: Patient has been delirious all night and day, the bowels having acted five or six times. Pulse 112, temperature 103° F.; face flushed, eyeballs suffused. At 2 P.M. two grains of opium powder were given, at 5 P.M. one grain; and at 8 P.M. one grain. At 11 P.M. the patient was asleep and breathing stertorously; he slept all night, off and on.—13th: Temperature normal, no delirium; pupils rather contracted, but react to light; breathing easy, gums slightly affected by mercury. From this date the patient made an uninterrupted recovery, several small fragments of exfoliated bone being discharged from time to time from the scalp wound.

The value of large doses of opium in traumatic delirium is exemplified in this case, and three useful lessons may be drawn therefrom. First, to accept *cum grano salis* statements of bystanders, as to the weapon used in the infliction of suicidal or homicidal wounds. Secondly, never to neglect the minute examination of a scalp wound, no matter how trifling; and thirdly, that no influenza patient should be left alone, even though the temperature be not higher than 101·5° F.

Port Nolloth, S. Africa.

MULTIPLE PAPILLOMATA OF THE VAGINA.

BY ALEX. G. R. FOULERTON,
RESIDENT ASSISTANT SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, CHATHAM.

ANN L——, aged forty-six, married, no children, presented herself for treatment because of pain in the lower part of her body and undue frequency of micturition. On examination her vagina was found to be blocked up by a number of small pendulous growths, blocked up to such a degree that it was only after some difficulty that the finger could be passed beyond the growths so as to reach the cervix. The patient was taken into hospital, and on Jan. 4th of the present year I proceeded to remove the growths in question. The growths were pedunculated and the majority were pendulous. They varied from the size of a horse bean to that of a large walnut. The pedicles were about three-quarters of an inch in length, and of different thicknesses. Several of the growths had become adherent by the greater part of their length to the adjoining portion of the wall of the vagina, only a small interval being left free close to the pedicle. They were attached separately to the vagina, three growing from the vaginal aspect of the cervix. There was also a similar small growth with a short pedicle pendant from the perineum. The woman was unable to give any history bearing on her troubles except that her husband had experienced considerable difficulty in coitus, and that the bladder irritability had existed for some years. More or less leucorrhœa had been constantly present for so long as the patient could remember. More than twenty of such growths were removed after an operation of some tediousness. They were snipped off with scissors, and the rather free hæmorrhage from the raw bases was checked with the benzine cautery. The patient was completely relieved after the operation, but has just returned to my out-patient room with recurrence of the disease—a recurrence that is marked by a considerable rapidity of growth. The growths were not examined under the microscope, but to the naked eye they seemed to consist of a core of fibrous tissue covered by a thick rugose layer of natural mucous membrane. Their blood-supply as noted above was abundant. They originated, I suppose, in gonorrhœal warts. These increasing in size became at last pedunculated. The adhesion of certain of the growths to the vaginal wall was the result of the union of contiguous ulcerated surfaces.

Chatham.

A FATAL CASE OF TUBAL GESTATION.

BY W. B. WOODING, L.R.C.P., M.R.C.S.

As opportunities of examining post mortem cases of extra-uterine gestation are not of everyday occurrence, perhaps a short account of a case which I recently attended would be of interest. On Thursday, June 18th, 1891, at 3.30 P.M., I was called to attend Mrs. Y——, about two months pregnant, who had been taken ill somewhat suddenly in the morning, and complained of severe abdominal pain. She had one child aged eleven years, and had had three subsequent miscarriages at about the second and third months of pregnancy. There was no history of specific disease. In the morning she was seized with acute abdominal pains, which she referred to the hypogastrium. On palpation I found some tenderness and rigidity of the abdominal muscles. Pulse 96, somewhat feeble; temperature normal. Thinking that an abortion was threatened, I prescribed a sedative and perfect rest mentally and physically. At about 7.30 P.M. I was again called to see her, and

found her suffering from considerable shock, with anxious countenance, pale lips, rapid and almost imperceptible pulse, shallow and sighing respiration, occasional sickness, and symptoms of irritability of the bladder. Per vaginam I found the os very low. All the symptoms pointed to internal hæmorrhage, and I diagnosed pelvic hæmatocele, probably due to the rupture of an extra-uterine ovum. The patient gradually sank, and died at 9.30 P.M.

Necropsy.—When the abdomen was opened blood at once welled up, and on examining the pelvis I found and removed over a quart of partly coagulated blood. There was an enlargement of the left Fallopian tube, about the size of a walnut, and situated about an inch from its uterine extremity. This was filled with blood-clot and was perforated on its upper and posterior aspect, hence the hæmorrhage. The uterus contained no trace of an ovum, but was lined with decidual membranes, which were easily detached. There was no apparent stricture of the tube on the proximal side of the cyst to account for its formation.

Lowestoft.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

SOME RECENT CASES OF INJURIES TO THE HEAD—(*continued*).

(Under the care of Mr. HULKE.)

REPORTED from notes made by G. W. Soulby, house surgeon, and the dressers.

Cases 1 and 4 of this series are examples of compound, comminuted, depressed fractures of the vault of the skull treated by trephining (Case 1 being reported in our last issue, p. 15). The slight amount of shock attending these severe injures and the absence of cerebral symptoms give them a peculiar interest. Both patients made excellent recoveries. Cases 5 and 6 are instances of fractures of the base of the skull. Of these, Case 5 is perhaps the most important, from the great extent and severity of the lesions. Here the fracture certainly implicated the anterior and middle fossæ, and probably also the posterior fossa, traversing the foramen magnum, for the motor palsy of the right half of the tongue pointed to damage of the hypoglossal nerve. In Case 6 some doubt must remain of the precise character of the injury, for the hæmorrhages were not copious. Also, the palsy of the facial nerve was not an immediate but a later result of the accident, and it was transitory. It was therefore not due to laceration of the nerve in its passage through the petrous bone, but to pressure caused by extravasated blood or by inflammatory swelling, which later subsided. However, the history of the accident and the symptoms, taken together, make the supposition of a fracture of the base extremely probable. Both patients recovered. In a very large proportion of instances of concussion—commotio cerebri—the symptoms are so slight, so transient, they pass off so quickly, the recovery is so quick and soon so complete that any injury which the contents of the skull may have sustained must be a minimum quantity. Cases 7 and 8 are instances of the more severe forms; in both of them it is probable that superficial lacerations of the surface of the cerebral hemispheres were present. In Case 7 there was the complication of an extensive scalp wound; and during several days after the accident the symptoms given by authors on these injuries as significant of the condition termed "cerebral irritation," were well marked: the patient lay with his head retracted or buried on his chest, his lower limbs drawn up on the abdomen, his arms flexed. He resented being spoken to, and his answers were almost monosyllabic. In Case 8 the injury was still more severe. The rigidity of the right arm, the local evidence of injury—hæmatoma—being in the left temple, increased the presumption of a surface injury of brain. The long interval—fifteen days—before the lad first spoke, the rapid recovery of consciousness, and the awakening of the intelligence when these had once begun to revive, are points of much interest. In the treatment of the cases with external wounds, and of those with bleeding from the external auditory meatus, the endeavour was to render and to maintain the wounded parts aseptic, and the agents used for this were mercuric chloride in watery solution of the strength of 1 in 2000, iodoform, and powdered boracic acid. The results are apparent from the narrative. Restlessness was met by sedatives, commonly by opium, in the form of extract of opium in a pill of ¼ gr. or ½ gr., given at intervals regulated to the requirements of the case. The prejudices entertained by some against this drug have, perhaps, arisen from its injudicious exhibition; given in quantities and at intervals, just sufficient to tranquilise, its action certainly appears beneficial.

CASE 4. *Compound, comminuted, depressed fracture of vault of skull; trephining; recovery.*—T. W——, aged twenty-two, a crane driver, whilst standing on a wall was struck on the head by a falling beam, which felled him to the ground. He was stunned, but recovered consciousness whilst being brought to the hospital, into which he was admitted at 3 P.M. on April 11th of this year. He had a scalp wound crossing obliquely the left parietal bone from near its lower border anteriorly, upwards and backwards towards the lambdoid suture, dividing all the structures down to the bone, in which a depressed fracture was detected, about three centimetres long by one centimetre broad, and widest posteriorly, where the outer was crushed down upon the inner table and deepest anteriorly where the whole thickness of the bone was depressed. Small gritty pieces of soil or mortar were embedded in the fragments. Temperature 97·6° F.; pulse 80, firm. No cerebral symptoms present. He so little realised that he was severely hurt that he was with difficulty persuaded to remain in the hospital. A small trephine was applied, which permitted the use of an elevator,—and the depressed part was raised. All the portions of bone in which foreign matters were entangled were removed with gouge forceps. The wound was washed out with a solution of mercuric chloride, the lips brought together with sutures—a narrow slip of oiled silk being employed as a drain, and an antiseptic dressing applied. Immediate union of the scalp occurred, except at the drain, which was discontinued on the 23rd. At the end of April the wound had completely closed. He was soon allowed to leave his bed, and he was permitted to return home on May 19th. From the first cerebral symptoms were absent, and his progress was uninterrupted save by a transient attack of tonsillitis on April 23rd.

CASE 5. *Fracture of the base of the skull involving the anterior and middle fossæ, and probably also the posterior; lesions of fifth, sixth, seventh, and ninth cerebral nerves; recovery.* (From notes taken by the dresser, Mr. J. R. Burnett.)—On March 16th of this year, W. E——, aged fifty-four, a stout, grey-haired house painter, was admitted into Founder Ward having a very short time previously fallen from a height of twelve feet upon his head by the giving way of a scaffold on which he was working. When addressed in a loud tone he seemed to realise, though imperfectly, that he was being spoken to. He complained of pain in his head; he was irritable, and very restless, often shifting his posture in bed. Blood was oozing freely from both ears, nose, and mouth. The lids of both eyes were ecchymosed and swollen, and a few hours later blood stains were noticed under the ocular conjunctiva, which when first seen were not continuous with the ecchymoses in the eyelids. Fæces had been unconsciously voided. Temperature 99° F.; pulse 60, full; respiration normal.—17th: Perfectly conscious, replying pertinently to questions. He had had a restless night, often attempting to leave his bed. He occasionally spits up small quantities of blood. He has nausea, aching in forehead, and much thirst. Temperature 98·4° F.; pulse 61; respiration 26.—18th: Slept better. Pain in the right side of face. His articulation is thick, and he seems to have some difficulty in pronouncing dentals. There is still slight oozing of blood from the right ear. The right nostril is blocked with blood-clot. Temperature 99·4° F.; pulse 62.—19th: Blood still oozes from the nose when this is blown. Complete anæsthesia in the entire distribution of the right fifth nerve and palsy of its motor root were noticed this morning. The right sixth nerve is also palsied. There is a doubt whether some branches of the right third and the fourth nerve are not palsied, but

the slight exposure of the eyeball possible, owing to the great swelling of the eyelids and the patient's feebleness, which will not allow a long investigation, prevent these latter being with certainty ascertained. His general condition improved slowly, and the restlessness, at first considerable, subsided, but the paralyses of the fifth and sixth, and the severe headache, persisted. On the 23rd paresis of the right facial nerve was thought to be present; the muscles of expression on this side of the face acted less distinctly than did those of the left side, and he could not control the orbicularis oris with enough precision to allow him to whistle. On April 2nd he mentioned that when eating he bit the right side of his tongue, that food collected between the tongue and teeth and between these and the cheek. When protruded, the tongue was seen to deviate towards the right. Tactile sensibility and taste are absent from the anterior two-thirds of the right half of the tongue. Subsequently on a few occasions, when tested, there appeared to be a slight recovery of tactile sensibility in the right side of the face. When touched with the nib of a quill pen he sometimes appeared to be aware of the contact, though he never in any one instance rightly localised it, but generally referred it to the left ala nasi. On the 16th rather profuse epistaxis occurred. At this date slight conjunctivitis and keratitis of the right eye (the surface of which was anæsthetic) supervened. At the end of April he was able to leave his bed, and in a few days later he was permitted gentle exercise in the garden. On May 19th he returned home, his general condition at this date being much improved, so that he might be regarded as convalescent, but he was advised to go for several weeks to friends in the country, and not to try to immediately resume work. Tactile and thermal sensibility were then completely wanting in all parts supplied by the first, second, and third divisions of the right fifth, and taste was absent from the right side of the tongue. When protruded this side of the tongue was also seen to be very distinctly flat and flaccid, and it did not exhibit the muscular quiverings very apparent in the naturally plump left half of the organ. The right temporal ridge was conspicuously prominent, and the fossa below it, with also the masseteric region of the cheek, was hollow, owing to wasting of the masticatory muscles, in which no contractions were perceptible when he tightly clenched the teeth. The conjunctivæ continued injected, and the corneæ slightly hazy. The external rectus muscle of the right eye remained absolutely palsied. The actions of the other ocular muscles, about which at one time there was some doubt, were unimpaired. The right side of the face was the seat of pain, which he called "neuralgic."

STANLEY HOSPITAL, LIVERPOOL.

A SUCCESSFUL CASE OF GASTRO-ENTEROSTOMY; REMARKS.

(Under the care of Mr. F. CHARLES LARKIN.)

THE operation of gastro-enterostomy has been performed in a sufficient number of cases to enable us to judge of its efficacy in relieving some of the more distressing symptoms of which sufferers from malignant disease of the stomach complain. The various modifications which the operation has undergone and the fuller knowledge of its possibilities enable us to define more accurately the class of case in which it will be most likely to do good. The mortality of the operation has been diminished by its more rapid performance, the shock being much lessened, and some surgeons have lately employed direct feeding a few hours after the patient has been returned to bed, so that the condition of previous semi-starvation is remedied as soon as possible. Mr. Larkin draws attention to the anatomical difficulties met with in this case and to his method of overcoming them. The case is important as indicating the amount of relief given in an advanced stage of the disease. Such cases should be fully recorded and the ultimate result made known.

J. G——, aged forty-seven, housewife, was admitted to the Oakshott Ward of the Stanley Hospital on May 2nd, 1891, complaining of weakness and vomiting after everything she took. The vomiting commenced in July, 1890. At first it was only occasional, and at times large quantities were brought up. For the last few months, however, it has occurred after everything she has taken, and has been small in quantity. The vomit was often frothy, and sometimes dark-coloured or streaked with blood. In or about November, 1890, she began to suffer from pain in the region of the stomach, and about the same time noticed a hard lump in the abdomen, a little above the umbilicus. The size of the lump, the severity of the pain, and the frequency of the vomiting increased up to the time of admission. She has progressively lost flesh, and the bowels have become very constipated. On admission she was noted to be "very thin, sallow, and cachectic." The abdomen was hollow, with the skin loose and wrinkled upon it. Behind the left rectus, about midway between the umbilicus and the xiphoid cartilage, extending from the middle line some three inches or more to the left, there was a distinct hard, nodulated mass that could be both seen and felt. It was painful on palpation, and moved with respiration. It could also be moved slightly from side to side. The other organs of the body were fairly healthy. She vomited after everything she took. Various drugs &c. were used, but none relieved. As she was exceedingly anxious that something should be done to relieve her, it was decided to explore the abdomen and remove the tumour if possible, or, failing that, to do a gastro-enterostomy. On May 22nd chloroform was administered and the abdomen opened in the linea alba by an incision extending from about two inches below the xiphoid cartilage to about an inch below the umbilicus. The tumour was examined, and found to occupy nearly the whole of the stomach; the only part which was free being at the cardiac end, and measuring from two to three inches along the greater curvature, but much less along the lesser. The part of the stomach occupied by the tumour felt hard and elastic, and measured some four inches in length and from two to three inches in thickness. The peritoneal covering looked irregular and scarred, and showed here and there little pinkish-white nodules, apparently of malignant disease, commencing to fungate through the stomach walls. Several similar spots were seen on the great omentum. Some glands along the lower border of the stomach were enlarged, as also were those in the transverse fissure of the liver. The lesser omentum seemed also to be thickened, causing the tumour to be firmly fixed to the liver. Owing to the large size of the tumour, the great part of the stomach involved, and the implication of surrounding parts, it was deemed imprudent to attempt its removal; it was therefore decided to perform gastro-enterostomy. On account, however, of the smallness of the uninvolved portion of the stomach, and especially on account of its height, it was found impossible to get a coil of small intestine up to it without unduly constricting the transverse colon. Accordingly an aperture was made in the transverse meso-colon, and another in the great omentum just below the stomach, and a coil of jejunum was brought through these and the lesser sac of the peritoneum and lay without tension on the healthy cardiac end of the stomach. Apertures were then made in the stomach and jejunum, and the decalcified bone plates of Senn inserted and secured in the usual way. As there was some tension on the parts, four Lembert's sutures were inserted around the plates and the parts dropped into position, the peritoneum sponged dry wherever blood had collected, and the wound was then closed. The patient was rather collapsed after the operation, but made a rapid recovery. The wound healed by first intention, except a small part of skin near the umbilicus. Nutrient enemata were given from the time of the operation, and peptonised milk was given by the mouth on the fourth day. Brand's essence was added on the fifth; bread-and-milk on the eighth day. The nutrient enemata were stopped on the tenth day. The bowels acted spontaneously daily after the fifth day.

June 17th (twenty-seventh day after operation).—Patient is up and about. Continues to take bread-and-milk, beef-tea, cocoa, fish, and finely minced meat. Has been occasionally sick during the last few days, especially after taking rather more food than usual, and more particularly after fish.

Remarks by Mr. LARKIN.—The chief points of interest in the case seem to be: (1) that though such an advanced case, she has been much benefited by the operation; (2) the method of bringing the bowel to the stomach through the lesser sac of the peritoneum. For the notes of the case I am indebted to my friend Mr. J. H. Fardon, senior house surgeon to the Stanley Hospital, to whom also much of the success of the case is due, on account of the great care he bestowed on the after-treatment.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Perchloride of Mercury in the Curative Treatment of Trachoma and other Conjunctival Diseases.—On a peculiar Form of Retinal Pigmentation. — On the Consensual Pupillary Light Reflex in Cases exhibiting the Argyll-Robertson Pupil Symptom in the Eye. — Two Cases of Complete Blindness with good Pupillary Light Reflexes. — Nystagmus in a Compositor. — Immediate Loss of Sight in both Eyes after Injury to Head. — Albinism: a curious Family History.

AN ordinary meeting of this Society was held on Friday, July 3rd, followed by the annual general meeting, the President, Mr. Henry Power, M.B., F.R.C.S., in the chair.

Mr. KENNETH SCOTT (Cairo) communicated a paper on Perchloride of Mercury in the Curative Treatment of Trachoma and other Conjunctival Diseases (read by the Medical Secretary). Mr. Scott had met with a large number of cases of trachoma in Egypt, and after a trial of the ordinary methods of treatment had had recourse to perchloride of mercury. He used a 4 per cent. solution, made by dissolving the salt in glycerine, and then diluting with water. This was applied to the everted lids once a day, and in addition a ¼ per cent. solution given to the patient to be used thrice daily. Iron tonics were usually prescribed during the treatment. Most of the cases were treated as hospital out-patients; a few were admitted to the wards. Mr. Scott had had very satisfactory results with this treatment, curing nearly all cases in about eight weeks. A similar treatment had proved very efficacious in ophthalmia neonatorum, in which the internal administration of iron was omitted.—Mr. MACKINLAY called attention to the fact that the use of perchloride of mercury was by no means new. It had been recommended by many of the older writers, but the strength of the solution employed varied widely.—Mr. JULER thought Mr. Scott's records appeared too good to be true. He had used perchloride of mercury combined with nitrate of potash in the solid pencil with satisfactory results, but his cases were not cured so rapidly as Mr. Scott's.—Mr. S. A. STEPHENSON said he had a rather large experience of trachoma, and had employed perchloride of mercury in a 1 per cent solution. Although a valuable remedy, he did not think it could be considered a specific. He had invented the pencils referred to, their composition being one of perchloride and four of nitrate of potash.—Mr. QUARRY SILCOCK expressed his satisfaction with the perchloride in trachoma, but did not regard it in any sense as a specific for the malady.

Mr. STEPHENSON read a paper on a peculiar form of Retinal Pigmentation, of which he had observed three cases during the examination of 2500 eyes. The ophthalmoscopic picture was characteristic of the condition, which consisted of variously shaped groups, composed of dark-coloured spots, arranged over a sector-like portion of the fundus. In each patient (all of whom were males) one eye alone was affected; the sight and the visual fields were normal; night blindness was not present. Moreover, though the cases were under observation for a lengthened period, the pigmentary groups remained stationary. A similar condition, Mr. Stephenson stated, is described in Jaeger's "Hand Atlas," Jaeger regarding the change as an anomalous form of retinitis pigmentosa. Mr. Stephenson, however, relying on the unimpaired visual fields and the non-progressive nature of the deposits, believed that the condition falls within physiological limits. He was inclined to think that the pigmentary changes discussed were allied to those small aggregations of retinal pigment which may be found in 8 per cent. of healthy eyes, and in explanation of both these conditions suggested that the development of pigment cells in the proximal plate of the optic cup overstepped its usual limits, and in this way produced the changes in question.—Mr. JESSOP asked the position of the pigmentation. He thought, from the drawings shown, the changes were chiefly in the region of the choroidal cleft.—Dr. ANDERSON referred to cases of his own mentioned by Mr. Stephenson, and exhibited a drawing of the right fundus oculi of a boy aged fifteen, suffering from rheumatic endocarditis, which showed groups of pigment deposits, each having an angular shape. The left eye of the same patient contained a large mass of homogeneous black pigment on the nasal side of the optic disc. He had come to the conclusion that the change was congenital, and Mr. Frost said that the physiological or pathological nature of the pigmentary changes could be determined only by noting whether they were progressive or stationary.—Mr. NETTLESHIP thought that the normal appearance of the choroidal pigment epithelium in Mr. Stephenson's cases was good evidence of the physiological nature of the change. He was not cognisant of any retinal or choroidal pigmentation of pathological origin in which the hexagonal pigment layer remained unaltered.

Mr. JESSOP read notes of five instances in which Consensual Pupillary Light Reflex was present in cases exhibiting the Argyll-Robertson pupil symptom, three occurring in Dr. Ormerod's practice. Three were in cases of tabes, one doubtful tabes, and one probably sclerosis of posterior and lateral columns. In all these cases, though the contraction of the pupil associated with accommodation was present in both eyes, the direct and consensual light reflex was lost in one and the same eye. In all these cases, also, the consensual light reflex was present in the sound eye, thus showing that the optic nerve of the affected eye was capable of carrying impulses to the light reflex centre of the opposite eye. The probable lesion in these cases is one affecting the light reflex centre for one eye near the endings of the afferent part of the reflex arc. These cases strengthen and uphold the theory of the decussation of the optico-pupillary fibres.

Mr. JESSOP also related two cases of Complete Blindness, with good Pupillary Light Reflexes. The first was a boy aged sixteen, with history of two and a half years' blindness, suffering apparently from "cerebral tumour." Both optic discs were white and atrophied, with small arteries. The pupils were both very active to light, both direct and consensual, and also acted to accommodation and convergence. The second case was a man aged thirty-four, who had been blind for six months, with loss of knee-jerks. The optic discs were atrophied, with small retinal arteries; the pupils were active to direct and consensual light reflex, and to convergence and accommodation.

Mr. SNELL (Sheffield) brought forward a case of Nystagmus in a compositor. The patient, aged twenty-one, had just completed his apprenticeship, and was engaged on the staff of a large daily paper. He came under observation on Oct. 17th, 1890. His work for some months had been heavier than usual, the hours from 7 P.M. to 3 A.M. Two days before coming to Mr. Snell he had returned home from work, went to bed, and rose as usual at 12 (noon). Then he noticed objects moving up and down, with some giddiness; no pain in head or sickness. The nystagmus was found to be vertical, and the movements were rather jumping; there was quivering of the eyelids. He was carefully examined for any central or other lesion, with negative results. The absence of any assignable cause, and the resemblance in some particulars to miners' nystagmus suggested inquiry as to the way his work was performed. He was visited at the printing-office, which was of course well lighted, and it was found that when he looked up to his "copy," instead of raising head and eyes together, he elevated the eyes only. This was fully described. Anyone trying it will find out how tiring it is. Other men at work raised the head with the eyes. The patient gradually recovered, oscillations disappeared, and he returned to work on Dec. 30th. He works with comfort, having adopted the suggestion as to raising his head at the same time that he looks up from the type to the "copy." Quite recently he has developed "compositors' cramp" in the right hand, and is incapacitated thereby from doing his work. Mr. Snell alluded to his views as to miners' nystagmus having for its prime cause the constrained position in which coalgetters worked. He mentioned instances occurring in men (not practical colliers) working at the pit bottom in good light, whose gaze was constantly turned up as the cage ascended and descended. Nystagmus, Mr. Snell thought, would probably be found associated with other occupations occasionally. Writers' cramp has been followed by the recognition of many similar conditions. The mention of this compositor's case would perhaps lead others to recognise more the connexion of nystagmus with occupation.

Mr. SNELL also related a case of Immediate Loss of Sight of both Eyes after Injury to the Head. The patient, aged

nineteen, was on Dec. 12th, 1890, crushed under a cage in a coalpit. The cage weighed between five and six tons. It struck his head and then pressed him down, laying him out almost flat. He lost consciousness, and bled at the nose and ears; his face was swollen and also his eyelids, and when he could open his eyes, the conjunctivæ were deeply ecchymosed. On recovering consciousness he found he was quite blind, and he had remained so since. When first seen by Mr. Snell on March 24th, the optic discs were decidedly whitened, but Mr. Jones of Wath-on-Dearne, who had examined the patient with the ophthalmoscope between two and three weeks after the accident, was unable at that time to detect any definite change in the colour of the discs. Mr. Snell said the interest of this case lay especially in the loss of vision in both eyes. He alluded to Holder's important data as to the frequent implication of the vault of the orbit and optic canals in fractures of the base of the skull. In this case the fracture would be far forwards, and at the time it involved the optic canals or body of sphenoid, it would also damage the optic nerve or chiasma. The slow appearance of optic atrophy was mentioned as in accordance with experience when the injury to the optic nerve was behind the entrance of the central artery.

Dr. W. G. SYM (Edinburgh) related a curious family history of Albinism. He communicated notes of a family of seven children who were alternately albino and dark. The children, with the exception of the seventh, were all living and in good health. They had no mental defects. The parents and all other relatives had dark complexions.

The following living and card specimens were shown:—

Mr. SILCOCK: Epithelioma of Upper Eyelid, Cheek, and Lip.

Mr. COWELL: Case of Acromegaly, with Atrophy of Optic Nerves.

Mr. CRITCHETT: Knife for Division of Membrane in Pupil after Cataract Extraction.

Mr. TREACHER COLLINS: Intraocular Growth in a Blind Glaucomatous Eye.

Annual Meeting.—The annual general meeting was held at 9.30 P.M., and the following officers were elected for the ensuing year:—President: Henry Power. Vice-Presidents: James Bankart (Exeter); John Whitaker Hulke, F.R.S.; John Hughlings Jackson, M.D., LL.D., F.R.S.; William M. Ord, M.D.; D. C. Lloyd Owen (Birmingham); H. R. Swanzy (Dublin); John Tweedy. Treasurer: George Cowell. Secretaries: Charles E. Beevor, M.D.; A. Quarry Silcock. Librarian: W. Adams Frost. Other Members of Council: James Anderson, M.D.; G. A. Berry, M.D. (Edinburgh); E. Treacher Collins; F. Richardson Cross (Bristol); Henry Eales (Birmingham); Robert Marcus Gunn; Gustavus Hartridge; Frank H. Hodges (Leicester); W. H. H. Jessop; Herbert William Page; J. A. Ormerod, M.D.; D. D. Redmond (Dublin).

OBSTETRICAL SOCIETY OF LONDON.

Puerperal Eclampsia.—Cyst of the Vagina.

A MEETING of this Society was held on July 1st, J. Watt Black, M.D., President, in the chair.

Dr. HERMAN read a paper on five more cases of Puerperal Eclampsia, especially illustrating the temperature and urine in this disease.—Case 1: Fits and premature delivery in first pregnancy; symptoms three weeks, and injury producing unconsciousness three days, before end of third pregnancy; spontaneous premature delivery of living child; fits beginning an hour after delivery; five fits; urine albuminous after first fits; nearly solid with albumen after last; diminished percentage of urea during fits, and probable diminution of the quantity of urine; rapid decrease of albuminuria and increase of urea percentage after cessation of fits, and, later on, slight diuresis; persistence of slight albuminuria for a month after delivery; subsequent cessation of albuminuria.—Case 2: First pregnancy; premonitory symptoms a week before fits; fits coming on in middle of eighth month of pregnancy; spontaneous premature labour; twins, both living; eleven fits in all, the last three-quarters of an hour after delivery; no retinal changes; sudden dyspnœa after last fit; steadily increasing dyspnœa, and death by asthenia forty-seven hours after delivery; irregular pyrexia throughout; diminution in quantity of urine and urea during fits; increase of albuminuria and further diminution of urea percentage during the six hours following delivery; then decrease of albuminuria and increase of urea percentage.—Case 3: Ninth pregnancy; premonitory symptoms three weeks, fits beginning fourteen hours before delivery; eight fits in nine hours; slight pyrexia; cessation of fits and fall of temperature after morphia and before delivery; intra-uterine death of child and premature delivery; urine solid with serum albumen; diminution of albuminuria following delivery; after delivery continuous rise of temperature, and death by coma ten hours after delivery; diminished quantity of urine throughout; steadily increasing diminution of percentage of urine throughout.—Case 4: Second pregnancy; premonitory symptoms two days before fits; fits coming on about end of seventh month; spontaneous premature delivery of living child three days after commencement of fits, and four hours after last fit; fits almost continuous for ten hours before admission, ceasing after morphia and chloroform; no retinitis; slight pyrexia before delivery; steadily increasing dyspnœa and rising temperature, ending in death fifty-two hours after delivery; urine solid with albumen before delivery; some diminution in albuminuria after delivery; no diminution of urea percentage; diminished quantity of urine and urea before delivery, rising, but not to normal amount, after delivery; acute degenerative changes in renal cortices, pulmonary and cerebral hæmorrhages.—Case 5: Third pregnancy; fits beginning in first stage of labour; forceps delivery; child living; six fits before delivery, within period of three and a quarter hours, the last half an hour before delivery; then four and a half hours without fits; then five more fits within a period of nine and a half hours; no retinitis; great and sudden fluctuations of temperature, not showing any relation to fits; urine before delivery solid with albumen (very little paraglobulin); diminution of albumen after delivery; more rapid diminution after cessation of fits; no casts; slightly diminished quantity of urine and percentage of urea during second set of fits; slight diuresis and increased urea excretion during lying-in; deficient memory for at least a week after fits; recovery. The author recapitulated the following facts, seen on comparing these cases with one another and with those published by him in vols. xxix. and xxxii. of the Transactions, in all twelve cases: 1. Four children out of ten died in utero. 2. The cases showed no direct effect of the fits on the temperature. 3. In all the cases observed at the beginning of the disease, except two, the quantity of urine was lessened. Of the two exceptions, one died, and in the other renal disease persisted after childbed. 4. In all, the excretion of nitrogenous matter in the urine was absolutely diminished, and in most the percentage was diminished. 5. In all, the urine was at one time nearly or quite solid with albumen. In three of the cases the fits appeared to increase the amount of albumen. The two cases in which the albuminous precipitate contained the largest proportion of paraglobulin both recovered. Of three in which the amount of paraglobulin was less than in the rest, two died, and in one renal disease persisted. 6. In all that recovered there was rapid increase in the amount of urine and the quantity of nitrogenous matter contained in it, and diminution in the amount of albumen. This restoration did not, as a rule, take place till some hours after the cessation of the fits, and went on more rapidly after delivery in the cases in which cessation of fits preceded delivery. This restoration of renal function did not take place in the cases which died. 7. Retinitis was only present in two cases, both of which died.—Dr. PETER HORROCKS alluded to the fact that in non-puerperal eclampsia the prognosis was grave if the temperature was high. Also that sometimes the temperature would rise considerably for some hours after death. He asked if the same were true in puerperal eclampsia. He also asked whether the casts in the urine were epithelial, as in tubal nephritis.—Dr. HERMAN, in reply, said the kind of casts seen in his cases was stated in the notes of each case. So far as he remembered, they were always hyaline or granular, not epithelial. His cases showed that the mode of death observed in some cases, with the temperature rising up to the time of death, was not the invariable one. The temperature had not been taken after death in any of his cases.

Dr. RUTHERFOORD read a paper on Cysts of the Vagina; their Etiology, Pathology, and Treatment. In this communication only cysts with liquid contents were referred to; air-cysts were purposely omitted. Cysts of the vagina were

classified as submucous, interstitial, and circumvaginal, though the author preferred the classification of superficial and deep, as it expresses their situation more accurately from a clinical point of view. Reference was made to the number of cysts generally found in each case, and their site, shape, size, and rate of growth were discussed. They were most frequently found in married women of middle age, but practically no period of life could be said to be exempt from them. The epithelium lining the interior of the cyst was most usually of the low cylindrical kind, but other varieties had been described. The question of vaginal glands was touched upon, and the opinions of different observers were quoted to show that in all probability there is an absence of glands in the vagina. The author figured a vaginal crypt as the nearest approach to a vaginal gland which had ever been observed by him. From these crypts it was possible cysts might occasionally arise under pathological conditions. The origin of cysts from connective tissue spaces, either as serous or blood effusions, was discussed; their derivation from dilated lymph channels, remnants of Müllerian ducts, Gartner's canals, and urethral glands were briefly reviewed, and the symptoms they give rise to and the methods of treating them were given. The conclusions reached by the author were that cysts of the vagina were derived from various sources, and might be divided into two classes:—1. *Accidental:* Cysts in this class originate (*a*) in crypts of the vagina in a few instances, by occlusion of their orifices and subsequent dilatation; (*b*) as effusions of serous fluid or blood into the connective tissue; (*c*) in dilated lymph channels; (*d*) in glands of the urethra; (*e*) in hydatid cysts—this variety ought not to be included amongst vaginal cysts. 2. *Congenital:* (*a*) From persistent remains of Gartner's canals; (*b*) from persistent remains of Müllerian ducts. Two circumstances had induced the author to bring the subject of cysts of the vagina before the notice of this Society. In the first place, on looking through the Obstetrical Transactions, reports of isolated cases were to be found, but nothing attempting their etiology, pathology, and treatment; and secondly, because he had had an opportunity of observing fourteen cases during the past four years, most of which were operated on, and their walls subjected to microscopical examination, either by himself or by Mr. E. Solly, late surgical registrar at St. Thomas's Hospital. Besides these cases he had collected others from medical literature since 1887, which, together with fourteen under his own observation, made a total of over fifty cases, and upon an examination of this series the present communication was based.

Dr. LEWERS showed specimens of microscopical sections of: (1) case of Squamous Epithelioma removed three years ago, no recurrence; (2) case of Columnar Epithelioma removed nearly two years ago, no recurrence.

Dr. HERBERT PAGE (Redditch) showed a Mylacephalous Acardiac Twin.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

A MEETING of this Society was held on March 9th.

Dr. G. T. BEATSON showed a specimen of Exostosis Cartilaginea removed from the deep surface of the upper angle of the scapula. The patient was a governess, aged over thirty. The tumour had occasioned pain in the distribution of the brachial plexus for a little over a year, and also some uneasiness with clicking sound on raising the arm, apparently due to slipping of the exostosis on the ribs. Remarks were made by Dr. Rutherford, Dr. Coats, Mr. Mayland, and the President as to the etiology of these growths, their distribution in the skeleton, their relations to and distinctions from hard exostoses, outgrowths at site of muscular insertions, and exostosis bursata.

Dr. W. L. REID and Dr. JOSEPH COATS showed injected preparations (jar) and microscopical sections of White Infarction of the Placenta in cases where the fœtus was stillborn. Dr. Reid had seen within the last twenty years large numbers of cases in which this condition of the placenta was present, and in which obviously healthy women gave birth to dead children alive up to within a few days of birth, and actually in good state of nutrition. Dr. Reid is now pretty sure that rheumatism has something to do with it, and he knows of one case in which it occurred three times, with marked rheumatic history. Dr. Coats made a preliminary report on the subject. The wedge-shaped white areas are evidently necrosed; sometimes the wedge-shaped areas are the seat of hæmorrhage (more recent state?). The conditions indicate a disease of the maternal structures, and this by the fact that the child, though stillborn, is usually fully developed and well nourished.—Dr. COATS invited members to send him such specimens as might come in their way, with details of the clinical history.—Dr. MACPHAIL had also had knowledge of such cases. He had not noticed any relation to rheumatism, but thought the condition specially apt to occur in cases where renal inadequacy existed, especially with oxaluria. At the same time, in cases of puerperal eclampsia, he had never found any traces of the white infarction.—Dr. A. G. AULD showed microscopical specimens illustrative of further observations on Chronic Inflammatory Lesions of the Bronchi and Bronchiectasis (from the laboratory of the Western Infirmary) 1. He described a hyperplasia of the epithelium and mucous glands with cystic dilatations of the ducts, lined by columnar ciliated epithelium, akin probably to the atypical epithelial growth described by Friedländer in the vagus pneumonia of the rabbit. References were made to the appearances described by Raynaud in the mucous glands of the bile ducts, and to the condition described by Fairlie Clark as ichthyosis linguæ, as possible parallels. The suggestion was made that the growth might tend, when of long duration, to assume a carcinomatous character. 2. The second or fibroid atrophic stage of bronchitis was referred to. This had shown hyaline cartilage to be a structure similar to the cornea, and in light of this fibrous transformation of cartilage was not difficult of explanation. True bony metaplasia was improbable, calcareous infiltration not infrequent. Glandular atrophy due to pressure of new-formed fibrous tissue in great measure accounted for peculiar wasting of wall and appearance of bridges described by Dr. Grainger Stewart. Connective tissue also undergoes atrophy from hyaline degeneration of its fibres and disappearance of the nuclei. 3. Peribronchitis and the changes of the bronchial wall in bronchiectatic fibro-tubercular lungs. In the case of fibroid changes following in the wake of the tubercular process the bronchial walls underwent a peculiar metamorphosis (spaces not pulmonary excavations). Though superficially resembling a pyogenic membrane, the deeper parts of the wall showed their bronchial origin in a remarkable growth of smooth muscle fibre which extended in rays along the septa. Query, are these derived from pre-existing bronchial-muscle cells or from connective-tissue corpuscles? Observations of Arnold, Bardeleben, and Ziegler were discussed. In the present instance their origin from pre-existing muscle fibres was maintained, on the ground that undoubted pulmonary excavations did not show them, and, further, that a somewhat similar lesion was to be observed in the Fallopian tubes in chronic salpingitis. In less diseased portions of such lungs bridge-like bands were found crossing these cavities, those probably due to junction of granulation growths sprouting from the walls. Details of this condition were given. It had not hitherto been described. 4. Certain remarkable lesions from a case where a gangrenous cavity existed at the base were demonstrated. 5. Dr. Auld next made some original observations on the subject of bronchiectasis. Too much had been made of pressure of the air and inflammatory degeneration; too little account taken of the influences of the changes in the pulmonary tissue. By placing the collapsed and atrophous lung tissue in the foreground, it was intelligible how in such cases the bronchial wall would expand to fill up the vacancy, as in the moniliform dilatations of acquired capillary ectasis. 6. The histological points of distinction between a bronchiectatic cavity and a pulmonary excavation were enumerated.—Dr. T. MEIGHAN showed a piece of steel removed from the Fundus Oculi by means of the electro-magnet some months after its entrance.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Surgical Section was held on May 15th, the President, Mr. H. G. Croly, in the chair.

Operations on the Thyroid Gland.—Sir WILLIAM STOKES read a paper on this subject.—The PRESIDENT spoke of the great importance of the cases detailed, and considered the Society was indebted to Sir William Stokes for having

brought the subject under notice, and also for reporting unfavourable as well as favourable cases. The President related a case which occurred in his private practice—a cystic growth. The venous hæmorrhage was so severe that he almost gave up the case in the midst of the operation, but ultimately removed the entire growth, and the patient recovered. The President mentioned two cases which he saw operated on, and the venous hæmorrhage was very alarming. In his experience symptoms of collapse often set in after interference with the cervical fascia, as in tracheotomy. He did not like operating on thyroid tumours in cases of deformity only. — Mr. THORNLEY STOKER had had the advantage of assisting Sir William Stokes at most of his operations, and he could endorse all he had said as to the difficulties and dangers common to most thyroidectomies. He (Mr. Stoker) had operated on a number of cases, having divided the isthmus in two and removed one lobe of the gland in others. He had come, as the result of his study of cases of other surgeons and of his own, to the following conclusions as to this operation: 1st. That it was a proceeding of extreme gravity to remove even a part of the thyroid, as no one could be sure beforehand but that he might, even in an apparently simple case, have to encounter the most fearful hæmorrhage. 2nd. That, in view of the subsequent occurrence of myxœdema, the removal of the entire gland was not justifiable unless a graft of the gland was then or subsequently inserted in some other part of the body—a proceeding which seemed to be one of much promise. 3rd. The division of the isthmus did not seem to produce much good, except such mechanical relief as it afforded to the trachea or other structures it may have pressed upon. 4th. That the operation of thyroidectomy was too grave a one to be undertaken for mere cosmetic purposes. 5th. That undoubtedly, as in cases of his own, removal of half the gland had been followed by shrinkage of the remaining enlarged portion.—Mr. LENTAIGNE fully endorsed Sir W. Stokes' account of the danger from hæmorrhage during operation on the thyroid gland. He had performed Sydney Jones' operation in one case in which the isthmus practically consisted of a middle lobe separated from the lateral lobes by a shallow furrow on each side. He had with great difficulty succeeded in getting a silk ligature around the isthmus in the furrow on each side, and after tightening the ligature he removed the entire isthmus with the small middle lobe between the furrows. The operation was most difficult, and lasted several hours. The veins seemed to be of the thinnest, bleeding freely almost on the slightest touch. The result was most satisfactory, as both lateral lobes had since almost entirely disappeared. The patient had been operated on eighteen months before, and he hoped soon to be able to exhibit the case at the Surgical Section. The operation had been performed to relieve extreme dyspnœa, and was very satisfactory. He was much interested in the account of the operations on exophthalmic goitre, which seemed to open a new era in the treatment of this disease.—Mr. M'ARDLE mentioned a case of his in which very copious hæmorrhage arose from a tearing of a thyroid vein close to the internal jugular. Ligature was applied, while the index and middle finger compressed the jugular. Of six cases one died, being one in which a process of the tumour passed deep into the mediastinum. He called attention to the fact that in the cases of resection of the entire or part of the gland which came under his observation, collapse occurred whenever traction was made on the mass, and which he supposed was due to stretching of the cardiac nerves. This collapse was on all occasions relieved by replacing the tumour. Mr. M'Ardle contended that thyroidectomy should not be carried out merely for the removal of deformity. In resection of the isthmus the ligatures should be slowly drawn, and the section made some distance therefrom.

GRATITUDE FOR MEDICAL SERVICES. — For the successful treatment of his wife in a dangerous surgical operation, performed by Dr. Michelsen of Wiesbaden, Herr von Donner, a merchant of Hamburg, has placed at the disposal of the authorities in this town, as a thank-offering, the sum of two million marks. This money is to be expended in the erection of a hospital in Hamburg, in which Dr. Michelsen is to be installed as chief physician. The building will take two years to complete, and at the expiration of that period Dr. Michelsen will leave the hospital at Wiesbaden for the medical establishment in Hamburg.

Reviews and Notices of Books.

Lessons in Elementary Biology. By T. JEFFERY PARKER, B.Sc., F.R.S., Professor of Biology in the University of Otago, Dunedin, New Zealand. With Eighty-nine Illustrations. Pp. 408. Macmillan and Co. 1891.

THIS book belongs to a series of works that have sprung up in considerable numbers during the past few years in which a professor endeavours to cultivate a habit of observation in the members of his class by placing before them not only a *précis* of his lectures, but a carefully drawn up description of some one type of each of the principal classes or sub-classes of his subject. If this is diligently studied the students carry away with them not only a good general knowledge of chemistry, botany, or zoology, as the case may be, but have been truly educated, have learned the importance of accuracy in observation, and of precision in expressing what has been patiently and closely examined. Professor Jeffery Parker inherits from his father, the distinguished morphologist whose application and indomitable energy contributed for so many years a succession of valuable papers on the lowest and the highest forms of animal life to the Transactions of the Royal and Linnean Societies, a particular capability of imparting knowledge in a pleasant and attractive manner, and the volume before us is an example of this power. He takes, for example, the amœba as a type of the protozoa, and follows it up, indicating the points of contrast with a description of hæmatococcus. Then follow in succession heteromita, euglena, protomyxa, and the mycetozoa. The characters of plant and animal cells are then discussed, which leads to a consideration of the lower algæ, bacteria, and the doctrines of biogenesis and homogenesis. The lower forms of animal life are additionally considered in paramæcium, stylonychia, and oxytricha, in vorticella, and the foraminifera, which again are contrasted with mucor and penicillium. Finally, hydra, the hydroid polyps, and polygordius conclude the chapters devoted to the lower organisms. The general characters of the higher animals, with short accounts of the starfish, crayfish, mussel, and dogfish, with a section or two on mosses, ferns, and the higher plants, complete the work. We think Professor Parker has exercised a wise discretion in what he has selected and in what he has omitted, a discretion to be expected from a man who is a teacher and has the instruction of students at heart, and as a part of his daily work. The drawings are numerous, and many of them are both original and good.

The Surgeon's Pocket-book: an Essay on the best Treatment of Wounded in War, specially adapted for the Public Medical Services. By Surgeon-Major J. H. PORTER. Fourth Edition. Revised and edited by Brigade Surgeon C. H. Y. GODWIN, M.S., Assistant Professor of Military Surgery, Army Medical School, Netley, &c. London: Charles Griffin & Co. 1891.

WE have reviewed previous editions of this work in terms of commendation, and see no reason for limiting our expressions of approval now that a fourth edition has appeared. It is astonishing what a large amount and variety of useful information the authors of this handy little book have managed to include within its 274 pages. We say authors, for although the late Surgeon-Major Porter was responsible for the first design and execution of the work, Brigade Surgeon Godwin may be said to have made it almost a new one by remoulding and reconstructing it afresh, and by additions to and a rearrangement of its original materials. Since 1875, when the first edition appeared as a prize essay, many changes have taken place in field medical service and great

advances have been made in wound treatment, based on fresh knowledge of infective wound diseases and recent progress in surgical bacteriology. Abdominal surgery, too, has had to be reconsidered and rewritten. The probable effects of the modern narrow bullet in gunshot wounds have to be noted; and the "Bry" system for fitting up railway goods waggons and other subjects had to be taken into account. The editor has succeeded, as it seems to us, in bringing the work up to the requirements of the day. From what we have said our readers will see that we consider this book, the matter of which is good and well arranged, a capital guide.

On Varicocele. A Practical Treatise. By WILLIAM H. BENNETT, F.R.C.S., Surgeon to St. George's Hospital, Member of the Board of Examiners, Royal College of Surgeons of England; Lecturer on Clinical Surgery and on Anatomy in St. George's Hospital Medical School. With Four Tables and a Diagram. London: Longmans, Green, and Co. 1891.

THIS is a very interesting little essay on a subject which has been obscured rather than elucidated by many who have chosen to treat of it. We doubt if the author has said the last word on some of the debateable questions which gather around this very common affection, but he has certainly made a valuable contribution to our knowledge of the anatomy of the left spermatic vein. His dissections have shown that it has a more or less free communication with the veins of the descending colon: sometimes a small colic vein opens into the spermatic vein, sometimes it is a comparatively large vein. Such a tributary to the right spermatic vein is almost never found. Mr. Bennett rejects the common but erroneous view which attributes the abnormal thickness of the veins of a varicocele to the effects of chronic inflammation; but it is strange that he has overlooked the real demonstrative proof in support of his views. He rests upon the fact that such abnormal thickness is always present even in the varicocele of quite young patients. He might have added that microscopic examination of these veins shows that the walls are not the seat of chronic inflammation, and that their greater thickness is largely due to an increase in the muscular tissue of the vein. As to the effect of varicocele upon the testicle, Mr. Bennett accepts the view first enunciated by Mr. Pearce Gould, that it is liable to arrest the growth of the testicle, and he maintains that a slight degree of defective development of the gland is an extremely common effect. We cannot quite accept Mr. Bennett's explanation of how this is brought about, although to him it is "fairly clear" that it is an outcome of "backward pressure" of the blood. He does not explain how it is that an enlargement of the venous channels as a multiplication of the vessels by which the blood escapes from the testicle causes "backward pressure." We well know that narrowing of a vein increases the blood pressure behind it, but we have never been able to understand how dilatation of a vein could do it. But, even assuming there is "backward pressure," it is not clear how this can cause softness of the testicle; we should rather have expected a chronic œdematous or indurated state. Mr. Bennett urges that varicocele originates in a congenital disorder or malformation of the veins of the spermatic cord, and if this is to be taken as equivalent to regarding it as a primary overgrowth of the veins, we believe his view to be correct and beyond question; but how far the varix is congenital in the sense of "present at birth" requires to be proved. The operation advocated by Mr. Bennett for the radical cure of varicocele was recently described by him in our columns, and it appears to be well calculated to effect with precision the object aimed at. We must confess to considerable surprise at reading elaborate directions as to the treatment of a small or moderate-sized varicocele so as to render it hardly noticeable at a physical examination such as that recruits for the army and navy have to pass. We are the more surprised because Mr. Bennett states that the size of a varicocele is not a measure of its importance as a bar to active military service, and we are sure that he would regret, if by resort to the devices he so minutely describes, a youth with a small varicocele gained admission to the service only to be invalided a few years later because the venous hypertrophy had considerably increased. We have written of this little treatise at this length because it is an honest attempt to deal with a somewhat difficult subject, and a real contribution to its literature.

Botany: a Concise Manual for Students of Medicine and Science. By ALEX. JOHNSTONE, F.G.S., Lecturer on Botany, School of Medicine, Edinburgh. Edinburgh and London: Young J. Pentland. 1891.

Botany Notes for Students of Medicine. By ALEX. JOHNSTONE, F.G.S. Edinburgh: E. & S. Livingstone.

IN the Manual the author starts with the assumption that "no one attempts to teach himself science nowadays; all wisely attend lectures and demonstrations where the principles are discursively set forth, and the details of structure, function, and classification exhibited and explained." Having that in view, one naturally expects that no attempt at discursiveness shall appear in the pages of the present volume, and, indeed, such is found to be the case. The volume is written in the form of a series of compact notes embodying definitions and grouping characteristics in a fashion least likely to tax the memory. The book treats of the morphology and physiology of the botanic world, very fully describes the vegetable cell, and the formation and the systems of the various tissues. The plant organs are then dealt with *seriatim*, and the physiology of the nutrition, growth, and reproduction of plants are set forth in a highly intelligible manner. Classification of the various plants follows, and the volume concludes with a very useful glossary of botanical terms. The work is admirably illustrated. Its scope may be gathered from the circumstance that it follows pretty closely the curriculum of the University of Edinburgh, with, however, slight modifications, so as to adapt the work to the requirements of the London University and other schools, and also to the examinations of the Science and Art Department.

The little volume entitled "Botany Notes" traverses the same ground as the preceding book, but is much more condensed, and rather more suitable for use on the evening preceding an examination. No doubt the best notes are those which the student works out for himself; but every student is not equally impressed with the importance and value of good notes, or has acquired the ability to supply himself with anything beyond the merest disarticulated skeleton of notes of the subject to which he has listened. This may arise from want of manipulative skill or from want of condensing power; but whatever may be the cause of defective note-taking on the part of such a student, he sooner or later discovers himself to be at a very great disadvantage with the good note taker, and is obliged to have recourse to notes manufactured for him by authors. It is very necessary, therefore, that such printed note-books should clearly define what purpose they are intended to serve. Of this volume the author "humbly trusts that the notes may be of some service to students preparing for professional examinations." It is not too much to believe that, if the student does not receive material aid from the "Botany Notes" now before us, he has but small prospect of receiving assistance from any printed matter whatever.

THE LANCET.

LONDON: SATURDAY, JULY 11, 1891.

THE official report on the influenza epidemic of 1889–90 has now been issued, with an introduction by Dr. BUCHANAN, the medical officer to the Local Government Board. It is a lengthy document, and comprises a record of facts the collection of which must have engaged much time on the part of Dr. PARSONS, who undertook the inquiry, with the occasional help of Dr. BRUCE LOW. Dr. PARSONS very wisely limits himself in the main to setting out the facts he has ascertained, such inferences as he draws from them being occasional only, but on such occasions they seem to be fully borne out by the evidence which the facts afford. When we explain that amongst the subjects dealt with are the following: the previous history of influenza, a detailed account of the prevalence of 1889–90 in this country, in nearly all European States, in each division of the hemisphere, at sea, on shore, amongst the population generally, in establishments, in the army and navy &c., the clinical history of the disease, its etiology, its extent and fatality, the prophylaxis, and that, in addition, there are abundant quotations as to the experiences of different medical men, whether holding official positions or not,—it will readily be understood that the report is a very comprehensive one, and that, apart from its other interest, it is a piece of historical work of considerable value.

The general course of the epidemic is traced in its march from the northern hemisphere in a direction east to west, and it is explained that this took place mainly against the prevailing winds. The theory of its relations to some Chinese inundations and of an aerially travelling miasm across the Asiatic and European continents is not borne out by the information procured; but, on the other hand, there does appear to be an abundance of evidence to show that it travelled mainly along the lines of human intercourse, attacking large towns and centres of population first, irrespectively of their position or frontiers; and that the disease travelled only just as fast as any humanly conveyed infection with similar incubation period might have been expected to travel. The prevalence of the disease, too, in every climate, and simultaneously in northern and southern hemisphere, would appear to indicate that it is largely independent of season, climate, and weather. Like many other infectious diseases, its beginnings have often been mild, and it has appeared to gather force and potency both with regard to spread and severity as it has extended in a community. All these various points are discussed at some length, and evidence from fleets and other isolated aggregations of men goes to show that the view as to its personal infectivity is the correct one. Indeed, fleets lying in the direction in which an aerial current of infection would travel if conveyed by wind from one country to another, seem to have had all but immunity, unless the crews and others had recently touched shore; whereas the lines of human traffic across the ocean appear to have constituted the lines and means by which the spread took place irrespectively of wind currents. Dealing with this part of the subject, Dr. BUCHANAN writes: "Probably no evidence has ever been put on record in such abundance as that accumulated in Dr. PARSONS' report, to show that, in its epidemic form, influenza is an eminently infectious complaint, communicable in the ordinary personal relations of individuals with one another. It appears to me that there can henceforth be no doubt about the fact." The contagium of the disease does not seem to be of a very stable kind, and one characteristic of its instability lies in its uncertain and varying incubation period. Sometimes this would appear to be even less than a complete day, and it may indeed be hardly discernible under certain conditions of its reception. But, speaking generally, the evidence adduced points to a period of from two to three days as the most common period of incubation, and to twenty-four hours on the one hand, and to some four days on the other, as fairly common extremes. How the poison is received into the human system is not as yet very clear. It might ordinarily be assumed to find entrance by means of the lungs, and the catarrhal symptoms at times induced have been regarded as giving some force to this view. But, taking capillary congestion of the conjunctivæ as one of the commonest of the early symptoms, Dr. BEZLY THORNE, whose views are quoted at length in the report, suggests that the conjunctiva is the structure which the infecting material, microbe or not, most generally, if not always, attacks. His contention that the disease tends especially to manifest itself as an infection operating on the cerebro-spinal nerve centres—a view which many share with him,—is also put forward amongst the added contributions to the report.

If influenza be a definite specific infection, one is tempted to ask what becomes of it during the long intervals which have elapsed between its recognised occurrences in Europe and elsewhere? It is true that between these epidemic periods there is periodically some increase of mortality, which extends over a series of years, and is recorded as due to influenza, as that term is commonly applied. And this leads to the question whether these attacks form the links between distant epidemics, or whether ordinary influenza itself is only a mild but infective form of the same disease; whilst the epidemic occurrences are simply due to certain conditions which give to an ordinary semi-specific contagion a special and occasional virulence which enables it for awhile to diffuse itself with increased potency, and to produce symptoms which are greatly in excess of those resulting from it under ordinary circumstances. There is, of course, some analogy in other specific diseases in support of such a view as this; and the subject is dealt with from this point of view as one deserving of future study as occasion may arise.

The relation of human influenza to an allied disease in horses, and notably to "pink eye," is also discussed; but we gather that Dr. PARSONS is not impressed with the evidence in favour of the existence of any direct relation between these diseases. He points out, amongst other things, that "influenza" amongst horses has frequently prevailed at times and places when and where there has been no human epidemic; that in the late epidemic persons having to do with horses were not observed to be specially or

earliest affected; that cases of apparent transmission of the disease from the horse to man were of somewhat rare occurrence; and that in many places where the late influenza epidemic prevailed—including such places as Newmarket—the absence of any similar disease amongst horses was affirmed.

The contributions that were received from local medical officers of health have been very numerous, and a number of these are set out in the report in some detail. From them especially comes evidence as to the value of good sanitary circumstances, in the widest application of that term, as a preventive of the disease. Overcrowding and impure air must be regarded as having a powerful influence in developing the epidemic; whilst poverty and absence of warm clothing have largely conduced to the fatality of the disease. Indeed, it would seem, on the one hand, that free movement of air has been a powerful preventive; and that, on the other hand, the assembly of people in churches, chapels, the Houses of Parliament, places of business, or other institutions, has involved some exceptional risk of contracting the disease, the risk depending in part on the closeness of aggregation and on the stagnant state of the air around. In fact, a number of local epidemics have had their beginnings in aggregations of this sort.

IF the recent election at the Royal College of Surgeons of England has not effected everything that the progressive section of the Fellows hoped and desired, it has effected enough to stimulate them to renewed exertions for the future. That Sir W. MACCORMAC should have been re-elected and returned at the head of the poll was in accordance with expectation, and can scarcely be regarded as possessing any political significance. As one of the Vice-Presidents of the College who may fairly aspire to the presidency, and as a surgeon of repute who has done good service to the profession, he was sure to command a substantial vote, and, so far as is known, he has no reactionary tendencies, but may be regarded as not inimical to mild and gradual measures of constitutional reform. When Mr. JESSOP entered the field, it was felt that he would prove a formidable rival to Mr. LAWSON TAIT, as he enjoyed the advantages of seniority and connexion with a provincial school (not like Birmingham, already represented on the Council), and happened to be a *persona grata* to many who were opposed to the more combatant and aggressive junior candidate. His return will not be seriously claimed as a victory for the official party, for he is credited with very liberal views, and will doubtless display the independence of thought and action which are desirable in councillors. Mr. RIVINGTON'S success will be a source of great satisfaction to the Association of Fellows of which he is a vice-president, and will act as a fresh stimulus to their efforts to realise a programme which gains new adherents among the Fellows every day. It shows that it is possible for a Fellow with definite views and adherence to principles to obtain a seat on the Council of the Royal College of Surgeons of England. It may also serve to prevent discouragement arising from apparently unaccountable fluctuations of votes from year to year. In the election of 1889, which was dominated by the Members' question, and adversely affected by the radical measure then being promoted by the Association of Members of the College, Mr. RIVINGTON, though avowedly favourable to the representation of Members of the College on the Council, polled 180 votes, but in the following year, when acute feeling had subsided, secured only 131, and yet at the present election, when the numbers voting were much diminished, he obtains 211. The explanation of these fluctuations lies in the circumstance that Fellows give their votes more readily from considerations of secondary importance, such as personal knowledge of a candidate and community of school or locality than from political convictions. In 1890 there was a strong current running in favour of the return of a provincial candidate and of the representation of Liverpool, and other considerations were set on one side. As a result of this and of great personal popularity, and an active canvass by his friends, Mr. MITCHELL BANKS received a plethoric vote, including no less than 53 plumpers, whilst at the same time there were two metropolitan candidates connected with schools which supply a considerable number of Fellows to the College. Hence the votes of the friends of these candidates were naturally withheld from one whose success might endanger their return, and such votes were set free at the recent election, and could be given in accordance with convictions in regard to the constitutional questions which have been pressed on the attention of the constituency. Mr. RIVINGTON'S election must be regarded as an act of poetical justice. In 1889 he stood, in association with Mr. TWEEDY and Mr. LAWSON TAIT, upon the reform platform, and was backed in common with them by the Association of Fellows. At that time many Fellows thought that the compromise to which the Association had agreed for the purpose of an intra-collegiate settlement of the claims of the Members went too far.

If the secret history of the three last elections could be related there would be much divulged which would edify the Fellows of the College. In the election just concluded the dominant idea in the official mind was to keep out Mr. LAWSON TAIT. Mr. RIVINGTON was regarded as having no chance on account of the small vote in his favour in 1890. His colleague, Mr. MACARTHY, was therefore urged to come forward by an ex-President of the College, and was promised a considerable amount of support. The request was acceded to, and the papers duly sent in, as we announced in our article of June 13th; but on the very last day for nomination Mr. JESSOP'S paper was signed by two of the staff of the London Hospital, and Mr. MACARTHY was requested to withdraw, in order to avoid splitting the official vote between himself and Mr. JESSOP, a course to which he assented before the names of the candidates were advertised. Mr. JESSOP'S candidature was necessary in order to keep out the arch enemy, Mr. LAWSON TAIT, and this has certainly been effected, but in all probability it will be found that a very good reformer has been seated on the Council, and that Mr. LAWSON TAIT will be returned in a very short time. It must be remembered that the latter gentleman was junior to all the other Fellows engaged in the contest, and that he polled more votes in 1891 than he did in either 1890 or 1889.

One circumstance we notice with regret, and that is the gradually diminishing number of votes which are recorded

at the election since the introduction of voting papers. In 1889, which was the first election at which voting papers could be used, 600 Fellows voted; in 1890 the number of voters was 537, and in 1891 they had been reduced to 454. This reduction in the total number of voters is much to be regretted; but it is largely due to the unreasonable maintenance of restrictions upon the use of voting papers, of which the Fellows' Association has endeavoured to secure the abolition. Busy men often forget to apply in time for voting papers, and it requires but little to interfere with the personal attendance of a voter at the poll, unless there is some question of burning interest to be settled, as happened in 1889. Hence the election will soon be left to those who have strong feelings for or against the measures of reform advocated by the Association of Fellows; and as the influence of that Association is extending and the party of passive resistance becoming gradually more enfeebled, it is clear that the ultimate issue must be in favour of the supporters of constitutional reform.

We are by no means forgetful of the just claims of Members to a participation in that reform; but until the action of STEELE *v.* SAVORY is concluded, it is obviously more seemly to refrain from discussing that important aspect of the question.

THROUGH the letter of our Paris correspondent last week, and through the ordinary newspaper media, our readers have been made familiar with one of those experiments in disease which shock the professional mind—the insertion of a minute fragment of the sarcomatous tumour of one breast into the healthy opposite breast of the same patient, with the result of a reproduction of the same disease at the spot of insertion. The identity of the growth in the two breasts was minutely verified by Professor CORNIL. Our readers do not need to be informed of the inoculability of cancer in circumstances much more significant than in this case, where the advanced cancerous disease of the patient may be supposed to have modified or increased her liability to similar diseased action in a wound in a similar part. The experiment is only a lame one in a scientific sense. In a professional and ethical sense it not only deserves, but it requires, the very strongest reprobation. It was attended by every circumstance that can add to its meanness and its infamy. It was done while the patient was under chloroform, and without having previously been asked her consent. The history of medicine contains many instances of medical men trying dangerous experiments on themselves and on consenting friends. Some of these experiments have been wise and some foolish. Some have been fruitful of good to the race. And there is something in the pluck and unselfishness of such experiments which excites the gratitude, and even the admiration, of the public. But here we are dealing with another kind of action altogether, where a patient, trusting confidingly in her medical attendant, put by him into a state of unconsciousness, already afflicted with a grave disease, increasing her vulnerability, has inflicted on her by the surgeon the disease with one hand which he removes with the other. We confess to having no patience to speak of the scientific value of such an experiment, which was as unnecessary as it was inhuman and unprofessional. We trust that the accounts of similar experiments in Germany, though under somewhat different circumstances—the patients, as alleged, being past all hope of recovery—will not be verified.

We do not wonder that the mere announcement of this cold-blooded experiment in the French Academy of Medicine called forth "quite a tempest of expostulation." The only error we can perceive in the proceedings of that body, and this may disappear under more detailed reports, is that Professor CORNIL did not deal first and chiefly with the ethical side of this case, instead of descanting on its scientific interest, and leaving to others the expression of their natural indignation. Be this as it may, the case ought to be exposed in all its details, the facts ought to be made public, including the name of the operator, who, for the honour of France, we are glad to be informed, is not a native. The Government of France should take action against him in the Courts of Law, and deal with him as one guilty of the very worst form of *malprazis*, and of the grossest prostitution of his professional character and opportunities.

But the case should not end here. It should be discussed and denounced in every medical society and by every medical authority in every country. Our profession is nothing if it is not a healing profession, and if its members cannot be implicitly trusted to shrink from all mean uses of the helplessness of those whose poverty and plight place them in our hands. Fanatics of all sorts, of which there is always an abounding crop, will find in this French statement a confirmation of the callous cruelty of a profession that has not hesitated to inoculate mice and even rats with cancerous juice or tissue, for the purpose of ascertaining its action. We have, of course, no sympathy with such people, and we may trust that the common sense of the public and the gravity of the disease with which it is the duty of medical science to contend with all fair means, will keep the fanatics within bounds. What we are concerned with is the line of demarcation between humanity and heartlessness. The very justification of careful experiments on animals is the superiority and sanctity of human life in the very humblest man or woman in the most unpretentious hospital. The perception of the disproportion between the value of the life of rats and mice, or even of rabbits and dogs, and that of men may be safely left to the operation of common sense supported by Scripture. But the medical man who tampers with human life betrays his profession, and for that act should be removed from it. This is the real moral of the case which has so properly shocked the French Academy of Medicine, and will shock all men who know the spirit and the traditions of medical sentiment. It will have one good effect. It will secure a recognition of the fact that we must never lose sight of the ethical side of our profession, and must claim from the Legislature fuller powers for the medical authorities to deal finally with those who disregard it.

THE trial of this case took place at the Old Bailey on July 3rd and 4th before Mr. Justice CHARLES. The prisoner WHITEFOORD was a qualified medical man who had practised at Albany-street, Regent's-park, for several years. JONES was a chemist trading as ABEL and Co., at Queen's-

road, Bayswater. They were indicted for having conspired together to procure the abortion of HYLDA HAMMETT, and with being principals before and after the fact. It would seem that HAMMETT, finding herself free from the usual periodical function, consulted JONES in the first place. He gave her some medicine on two or three occasions, with no effect; consequently he sent her to WHITEFOORD. The case for the prosecution was that WHITEFOORD introduced an instrument into the womb, with the result that HAMMETT aborted after a few days. The miscarriage happened at the residence of HAMMETT'S mistress. Needing assistance, she sent a fellow servant to JONES, seeking his advice. Eventually, after some correspondence, JONES visited HAMMETT. On that occasion he took away with him a four months' fœtus, and told HAMMETT to send for WHITEFOORD. In one of the letters written to JONES, HAMMETT referred to the occurrence of her miscarriage, and from the tenour of the missive it could not be doubted that JONES was not altogether unprepared for the information. Late at night WHITEFOORD was called to HAMMETT. As he approached the house the girl's mistress was awaiting the return of the messenger—another servant—not knowing where she had gone. In the end, WHITEFOORD saw HAMMETT, and inquired if she had been lifting heavy weights, making it appear as though he had not seen the patient before.

On the following day, HAMMETT having confessed to what had transpired, the medical attendant of the household was summoned. HAMMETT'S mistress afterwards called on JONES, when he practically admitted his guilt, adding that he had done what he thought best for the girl, who had told him the knowledge of her shame would break her mother's heart and cause her to lose her situation. Visiting WHITEFOORD at his residence, he denied having seen HAMMETT prior to his attendance after the miscarriage. This falsehood he attempted to justify by saying it would have been a breach of professional trust to have acknowledged HAMMETT'S previous calls at his residence. Being unable legally to give evidence on oath, WHITEFOORD read a statement of defence at the police-court, and this of course was produced at the trial. He denied having used any other instrument than a speculum; but HAMMETT deposed to his introducing a steel instrument about a foot and a half long, and said that WHITEFOORD showed it to her. This, it was believed, was a Schroeder's uterine dilator. A case containing a set was found at WHITEFOORD'S house after his arrest. WHITEFOORD further alleged that HAMMETT was suffering from a uterine discharge, and was, in his opinion, about to abort. The former fact she positively denied. The most damning and direct evidence was the testimony of HAMMETT that she paid the prisoner £5 for his services. Such a fee charged by a general practitioner to a servant girl for the treatment she had received was utterly at variance with a supposition of innocence. The facts as regards HAMMETT were supported in their significance in that about the same time one of her fellow servants also applied to JONES under similar circumstances. She, too, after a futile administration of drugs, was sent on to WHITEFOORD, who told her that his charge for her case would be £7. Fortunately, the fact and explanation of HAMMETT'S abortion cut short the proposed "treatment" of the other girl. Some stress was laid by the prosecution on the discoveries made at WHITEFOORD'S house in the shape of a large number of instruments suitable for procuring abortion. It is true that none of these instruments might not have been legally and properly in the possession of a medical man; but their number, absolutely, and relatively as regards the paucity of other instruments, gave grounds for suspicion. Amongst a number of invoices found, it appeared that during the last five years no less than twenty-nine boxes of sea-tangle tents had been obtained by WHITEFOORD—a number, we venture to say, far exceeding the demands of legitimate practice. The prisoners were convicted. Mr. Justice CHARLES, when passing sentence, remarked that it was to be feared that the present was not an isolated case as regards WHITEFOORD, but that JONES seemed to have fallen rather by inadvertence than design. The testimony to JONES' previous good character no doubt impressed the mind of the judge, as it was bound to do.

It is with feelings of regret and shame that we have to chronicle the evil doings of a member of our profession. We rejoice, however, that such miserable, unmanly, criminal conduct has been detected and punished. WHITEFOORD was sentenced to five years' penal servitude and JONES to eight months' hard labour.

Annotations.

"Ne quid nimis."

THE HEAT AND SUNSTROKE IN GERMANY AND ITALY.

ACCOUNTS from Germany and Italy apprise us of the occurrence of cases of sunstroke among the troops of those countries. The hospital at Erfurt, we are told, was filled with soldiers of the 94th Infantry regiment, which had marched in full field equipment from Weimar to Erfurt, reaching the latter place at 2 P.M. The heat is described as having been very great; 120 soldiers fell out of the ranks *en route*, 40 men were admitted to hospital with sunstroke, four cases of which had terminated fatally, and others were likely to do so. Also, according to accounts from Rome, a force composed of the 57th and 58th regiments of infantry and the 11th Bersaglieri made some forced marches during the late hot weather, with the result that numbers of soldiers fell out on the march and had to be taken to hospital. Forced marches cannot be undertaken by troops suddenly and in the absence of previous training without risk of this sort, and the subject calls for some remarks at the present time. There are three different conditions which may be practically recognised as the result of exertion and fatigue in hot weather. The first two commonly occur in the open air on exposure to a hot sun, but the third more frequently than not arises from the indirect effects of solar heat or from radiated heat, or in the stagnant atmosphere of a badly ventilated and overcrowded room or tent during a hot night. When a number of men are marching in a hot sun some fall out exhausted from the combined effect of heat and fatigue, and in them the skin may be cool and perspiring freely, and the heart's action weak and embarrassed. Rest in the horizontal position in the shade, and exposure to the breeze, or fanning, with possibly a stimulant, suffice for their rapid recovery; the phenomena of *bonâ-fide* sunstroke do not ensue. But with others it is far different. The temperature of the body rises with an upward rush,

accompanied by a rapid loss of consciousness and possibly convulsions, contracted pupils, embarrassed respiration and circulation. In cases of hyperpyrexia of this sort the line between life and death is a narrow one, and the all-absorbing consideration is how to reduce the abnormally high temperature, and until this is accomplished no other matter is worth regarding. Such cases as these are very rare in this climate. If the question be asked, What can be done to guard against occurrences of this sort? the reply will be, Much in every way. Obviously, the cool of the evening or early morning should be selected for marching, and the march not extended too far at a spell; the ranks should be as open as possible to admit of the free movement of air; there should always be plenty of water available; food should be taken before starting, and at halting places *en route*. Light-coloured, loose-fitting garments should be worn, to admit of the freest respiratory movements and perspiration, aided by the play of the wind through the texture of the clothes. This is an important point. Alcohol, until the sun is down, is positively injurious, whereas tea and coffee are excellent beverages and respiratory excitants. Heatstroke is not a very frequent disease in the British Navy, and the cases that do occur generally arise in the Red Sea in the persons of cooks, stewards, bakers, and occasionally stokers. The blue jackets and men employed in the open air on deck are rarely attacked. During the Egyptian campaign of 1882 a large number of men fell out from sunstroke, and some lay exhausted on the sand of the desert, but exposure to the cooler breezes of the night restored them. In India they would almost certainly have died under similar circumstances. When a person becomes the subject of *bonâ-fide* sunstroke of the graver kind, the measures to be adopted should be active, and everyone is agreed as to their nature and the object to be aimed at—viz, the reduction of the temperature by freely exposing the body to the atmosphere and to artificial currents of air, douching it with cold water and applications of ice to the surface. Antipyretics have been used hypodermically with varying success. They do not, however, seem to be very reliable agents. Dr. John Anderson speaks very highly indeed from his Indian experience of the results of hypodermic injections of the hydrobromate of quinine—in addition, of course, to the other measures we have named.

THE CASE OF MR. W. H. GLADSTONE.

AS reports more or less inaccurate have appeared in the daily papers concerning the illness of the late Mr. W. H. Gladstone, we are glad to be able to state the actual facts. Mr. Gladstone five years ago showed symptoms of the commencement of the growth of a cerebral tumour. These symptoms consisted in the most remarkably localised epileptiform seizures, followed by motor aphasia and paralysis of the right arm and leg. The hemiplegia and other symptoms gradually became more pronounced during the last few years. The history of the case tended to show that the growth was non-malignant, and a very prolonged course of medical treatment adopted on this view produced no amelioration in the condition. Quite recently a consultation was held between Sir Andrew Clark, Dr. Hughlings Jackson, Dr. Ferrier, Mr. Horsley, and Dr. Prickett. The result of this consultation was the opinion that an exploratory operation was desirable for the purpose of ascertaining whether the tumour could be removed and to relieve pressure. At the same time, it was pointed out that probably it was too deeply seated and too extensive for safe removal. On this understanding the operation was performed, but unfortunately, though Mr. Gladstone recovered from the effects of the chloroform, his strength did not enable him to rally from the shock, and he slowly sank. It was found that the severe and prolonged pressure had flattened the medulla oblongata and basal structures.

A NEW TREATMENT OF TUBERCULOSIS.

FOR some time past M. Lannelongue of the Trousseau Hospital, Paris, has been making observations upon the effects of chloride of zinc in the treatment of tuberculosis, his object being to induce in tubercular formations the fibrotic changes which constitute the basis of "naturally cured" tubercle. At first his trials were made purely on external tuberculosis, joints, skin, &c., but from a communication read at the Academy of Medicine on the 6th inst. he announces the applicability of his method to pulmonary tubercle. His results have excited considerable interest, and will be scrutinised by a special committee. We publish, in a letter from our Paris correspondent this week (see page 93), some details of the treatment, and hope to give fuller particulars of the method next week, when doubtless it will be possible to appreciate the *rationale* of this new treatment more fully than the reports at present to hand permit.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

THE Congress ticket is now ready, and intending members are strongly urged to obtain this ticket some time before the opening of the Congress. By so doing, the work of the organising committee will be greatly facilitated. It may be well to point out that the Congress will be opened at 3.30 P.M. on Monday, Aug. 10th, and all who wish to be present at the opening ceremony must have obtained their Congress ticket, and also a ticket for St. James's Hall, by 3 o'clock at the latest. It is feared that if members delay their application till Monday, Aug. 10th, it may be found impossible to issue them with sufficient rapidity. Intending members are therefore reminded that Congress tickets may easily be procured through the post by letters addressed to 20, Hanover-square, and containing a remittance of £1.

THE ROYAL BRITISH NURSES' ASSOCIATION.

THE deputation of British nurses which last week waited on Princess Christian, for the purpose of presenting a commemorative gift upon the occasion of her silver wedding, was able to speak in terms at once accurate and satisfactory of the measure of success which has so far attended the undertaking to which the Princess has devoted much time and attention. Nor was their confidence any the less pronounced for the opposition by which they have been met. Largely mistaken, but also in some measure interested, that opposition has recently secured a most influential recruit in the person of the President of the Board of Trade, who has unfortunately been persuaded into undertaking the very unprofitable task of forming an opinion upon the merits of the work which the Association proposes to undertake, and the adequacy of its machinery to the purpose in view. If Sir Michael Hicks-Beach were called upon by law to pronounce an opinion upon such points, it would be fitting that he should have all the assistance which an inquiry would afford him, at which evidence could be taken, explanations afforded, and arguments submitted. But he has chosen to assume a burden which the Legislature has not assigned to him, and one consequence is that, having no means of holding such an inquiry as we have referred to, he has been led to form and express an opinion without even hearing those who advocate the project which he has condemned. Such a state of things is intolerable, and, if other resources fail, the matter must be brought before Parliament and set at rest, if necessary, by fresh legisla-

tion. Indeed, we understand that it is intended to ventilate the whole question in Parliament, and, in the present attitude of the Board of Trade, that seems very desirable. It may be, however, that the President of the Board of Trade is disposed of his own motion to reconsider his somewhat precipitate decision already announced, for we learn at the moment of writing that he has consented to receive privately a small deputation for the discussion of the subject. If so, we should be sorry to say one word that might tend in any way to embarrass his position. The work to which the promoters of the British Nurses' Association have set their hands is too important, whether from the point of view of the public or from that of the nurses, for them to court collision with the Board of Trade. If the matters in doubt are frankly and fully discussed, we are well satisfied that every reasonable assurance of the fitness of the promoters of the Association to carry out their project, and of the public utility of their work when done, can be afforded, and we readily recognise that this would be a more satisfactory solution of the present difficulty than the transfer of the discussion to another sphere.

ACTION AGAINST A CHEMIST UNDER THE APOTHECARIES ACT.

MR. BRIGHT, a chemist, of Church-road, Willesden, has been prosecuted in the Marylebone Police Court by the Society of Apothecaries for a breach of the Apothecaries Act. Several instances were adduced. Two of these the judge thought too trivial to consider; but in a third case, in which the chemist had felt the pulse and looked at the tongue, the judge thought there was some evidence. Mr. Bright denied having felt the pulse or looked at the tongue, and the jury, without the least hesitation, returned a verdict for the defendant, with costs on the £10 scale. The counsel for the prosecution unnecessarily introduced into the case the name of a medical gentleman in the neighbourhood, and wished to have the authority for the statements made. The judge ruled that it was enough for counsel to say that the case was promoted by the Company itself.

PATHOLOGY OF TIC-DOULOUREUX.

DR. CHARLES L. DANA of New York contributes a paper to the *Medical News*, May 16th, on the changes found in the nerves in cases of tic-douloureux. Excluding such causes as a bony tumour, aneurysm, or syphilitic exudation, the late Dr. Anstie was of the opinion that this condition, like other chronic neuralgias, was due to an atrophic change in the sensory ganglia. But it may be confidently stated that neuritis and degenerative changes in the nerve are not the usual and ordinary conditions in tic-douloureux, for in almost all cases, no matter how old, no permanent anæsthesia occurs. The question therefore arises, whether there is any tangible cause of the condition. Dr. Dana maintains that many cases at least are due to an obliterating arteritis of the nutrient vessels of the nerves. His reasons for this proposition are as follows: 1. The disease occurs at a time of life when degenerative changes in the arteries begin. 2. It affects chiefly and primarily a nerve supplied by one of the terminal branches of the internal maxillary, itself a branch of the external carotid. If it extends or recurs it involves a nerve nourished by the inferior dental, also a branch of the external carotid. It rarely affects seriously the supra-orbital nerve, which is supplied by a branch of the internal carotid artery. Hence, the disease follows a certain fixed vascular distribution. 3. He examined five superior maxillary nerves removed in typical cases of tic-douloureux. In none was there any noteworthy change of the nerves. In three of them striking evidence of arterial disease was found. In the fourth and fifth cases no bloodvessel was present in the specimens. 4. The view that an obliterating arteritis is a factor in this disease is strengthened by therapeutic experience. Nitro-glycerine will sometimes relieve pain instantly and for a long period of time; aconite, which is so useful in this disease, also lowers blood tension. 5. There is unquestionable evidence that removal of the peripheral nerves sometimes cures tic-douloureux entirely, and hence that the disease is peripheral and due to some local peripheral irritation. 6. MM. Quenan and Lepars have recently stated that by a new method of injection they have been able to discover a closer and more extensive relationship between the nerve trunks and bloodvessels than has heretofore been known, and they suggest in conclusion that disturbances in blood-supply may be a serious factor in causing neuralgia.

"TREADLER'S CRAMP."

AMONG the more unusual forms of trade spasm is that occurring in hand-loom weavers, which is known as treadler's cramp. At a recent meeting of the Neurological Society of London such a case, under Dr. Hughlings Jackson's care at the National Hospital for the Paralysed and Epileptic, was shown by Dr. Rivers, and an account of it appears in the last number of *Brain*. The patient was a man of fifty-six, and from the age of sixteen he had been a hand-loom weaver. Ten years ago he began to make mistakes in his work, which he was inclined to think were due to some defect in his loom. After a time the right leg began to bother him in walking, and he then discovered that the mistakes in his work were due to imperfect treadling with the right leg. The difficulty increased, and he has been unable to work as a weaver for five years. He now suffers from spasm occurring in the leg at the commencement of flexion of the hip and knee, extension being accomplished with ease. The spasm can be lessened by supporting the leg at the knee, and especially if pressure be exerted in the popliteal space. In walking the patient leans forward, and there is very imperfect use of the right leg. The left leg is normal and the knee-jerks are equal. There are decided electrical changes in some of the muscles, the right glutei and hamstrings responding less readily than their fellows of the opposite side either to constant or interrupted currents, but there is no qualitative change, although some degree of wasting is present in those muscles. The case seems to lend support to the view that trade spasms are associated with some atrophic condition of certain elements in the anterior horns of the spinal cord, and are the results of a negative condition of certain elements, with a positive or super-positive condition of others.

HYPODERMIC INJECTION OF CAMPHOR.

THE employment of camphor hypodermically in solution in oil, spirit, or spirit and ether, is much more general on the Continent than in this country, German and Russian practitioners esteeming this a valuable method of treating symptoms of impending collapse. Other uses, too, have been found for it—e.g., Dr. Bruno Alexander of Berlin has recently published an interesting paper giving the results of an extensive series of observations made during the last two years on the effects of hypodermic injections of oleum camphoratum, which is composed of one part of camphor to nine parts of olive oil, in a large number of cases of disease of the lungs. The dose given was fifteen minims once a day. As the effects of camphor are cumulative, it was found that four daily injections were as much as could usually be borne without some unpleasant effects, such as headache and restlessness at night. After an interval of a week, however, one more injection could be given without causing any unpleasant

symptoms. Phthisical patients seemed to bear continued treatment better than others, and its results in the last stage of phthisis were very valuable, the night sweats, the irritating cough and the expectoration being diminished in a remarkable manner, even the first dose effecting a very noticeable improvement in the patient's condition. In hæmoptysis the method also proved very useful, patients being enabled to get about again without fear of a recurrence more rapidly than under ordinary methods. Camphor injections administered in bronchitis increased the secretion at first and afterwards caused it almost to disappear. They did not seem to be of much use when there was also emphysema. In pneumonia their value was especially marked in weakly individuals or in those with cardiac disease, and they cut short follicular tonsillitis and acute coryza. It was found that in some cardiac cases, where digitalis had ceased to be of benefit, after a few camphor injections, it could be again given with good results. These injections must of course be given to children only in very small quantities, but no effect appeared to be produced on the infants of mothers who were being treated by camphor injections for catarrhal pneumonia.

THE ELEMENTARY EDUCATION BILL.

THIS Bill, which has been voted with singular unanimity by all parties in the House of Commons, is a measure which has large claims, both direct and indirect, upon the interest and attention of our readers. Being chiefly a financial measure, it lies mainly apart from the line of the discussions which we are accustomed to follow in these pages. Yet even on this aspect it deserves consideration, for the fiscal principles which it applies to the subject of education are in no small measure applicable to the problems of medical relief, and may fitly be discussed from that point of view; but incidentally it touches questions concerning the extent of the education to be provided and the period of a child's life during which it is to be administered that have a very important bearing both on the efficiency of the work of education and on the degree of pressure on the children by which it is accompanied. We note with lively satisfaction that the Government has agreed to extend the limits of age within which a pupil may earn the grant. The objection to the original proposal was most forcibly put in the argument upon the second reading by Sir Lyon Playfair, who showed by figures that a very large proportion of school children fall much below the normal standard of attainment, and that in the case of backward children it is eminently desirable that they should be encouraged to remain under tuition until their sluggish faculties have had time to assimilate the materials of a sound elementary education. The fixing of fourteen as the age limit for the grant would assuredly have had the effect of taking these children away from school, in however unprepared a condition, as soon as the limiting age was reached. It cannot be too strongly urged or too carefully borne in mind that one child of fourteen may easily be as immature as another child of ten. It may indeed be necessary as a practical expedient to fix some limit of age, though as to this we entertain some doubt; but, if so, it is well that the limit should be so fixed that no obstacle can be by it placed in the way of the retention of the children in their teachers' hands for as long a period as does in practice obtain under existing conditions. It was of course easy to argue that relief given to the parent while the child is under fourteen years of age cannot diminish his ability to pay for the child's education afterwards; but this is specious rather than convincing. In point of fact the expenditure of a labouring man, like that of everybody else, is proportioned to his means, and his income is kept by competition down to what is requisite to provide him with what in his station are considered to be necessaries of life. If the education of his children is included among the necessaries, both income and expenditure will be planned and determined accordingly, but when it becomes an optional matter the case will be very different. There will be no accession of unappropriated income arising to the parent just as the child passes the statutory age, and the practical difficulty of taking up at that moment the burden of education which the Exchequer lays down will amount to a practical impossibility. With regard to the fiscal question, it is to be noted that a difficulty which nobody is prepared to meet arises as soon as the attempt is made to introduce what is vaguely called "popular control" without sacrificing the important aid at present derived by voluntary schools from the gifts of their annual subscribers. This source of revenue constitutes by no means an unimportant part of their resources, and very naturally a great reluctance is felt by those in a responsible position to sacrifice so valuable an addition to their "ways and means." No doubt the private sympathy which provides this fund is founded largely upon religious grounds, and that particular complication does not enter into the very analogous case of regulating hospital and other medical relief. But in the case of medical charities, even more than of schools, the voluntary contributions of interested supporters are the corner-stone of the financial system. In the former case there can hardly be a question of dispensing with this source of income altogether, and those who are interested in the solution of the hospital problem will narrowly scan the further developments of the education adjustment for any indications of a principle of reconciliation that may serve to provide an efficient control, whether popular or other, without alienating that popular and spontaneous goodwill which underlies voluntary support.

RECENT DEATHS UNDER CHLOROFORM.

IN the course of some remarks made during the holding of a coroner's inquest, attention was drawn to what appeared to be a large number of deaths attributable to chloroform occurring at one institution during the present year. The institution is the Manchester Royal Infirmary, and the number of reputed deaths from chloroform since January last is five. We have, through the courtesy of a correspondent, been placed in possession of facts which show that the mortality stated cannot in justice be attributed directly to the administration of chloroform. Two cases out of the five are put down as being due to chloroform "pure and simple"; but beyond the remark that the persons "were bad subjects for the anæsthetic," no particulars are given. In the case of two other fatalities the particulars are given as follows. In both instances they were emergency operations, and the patients had in their stomachs food—the vomiting of which and its being drawn back into the air passages were the determining causes of death. In Case 1 the patient suffered from a strangulated hernia with stercoraceous vomiting. As we are informed, "tracheotomy and herniotomy" were performed. It would appear that the vomit entered the trachea, and that this was the actual cause of the death, which took place upon the operating table. In the second case the patient, a railway shunter, was, whilst engaged in his duties, so injured that amputation through the forearm was rendered necessary. Recurrent hæmorrhage obliged the performance of reamputation, and while under the chloroform the patient vomited, and a portion of the vomit (the pulp of an orange) entered the windpipe, and necessitated tracheotomy and removal from the trachea of masses of pulp. The patient, however, survived this, and was able to converse with his friends, dying suddenly from syncope some few hours subsequently. In the fifth case

the patient was a girl aged fourteen, upon whom osteotomy was to be performed. She had successfully undergone the operation for straightening one leg. The chloroform was administered by a skilled person, and, the osteotomy being completed, the patient was resuming consciousness. The dangerous symptoms were observed to occur just at the time that the knee, left stiff after the preceding operation, was being forcibly moved. The symptoms, we are informed, resembled those of severe shock. An additional point connected with these deaths is that a preparation of that substance now in common use—the Warrington chloroform—was employed, and some comment was made upon the fact that that preparation was under trial at the infirmary. The above narrative, and the evidence of chemical experts, proved beyond cavil that no blame could be imputed to the particular chloroform used. Another death in London is also reported in the practice of a surgeon of large experience, and while an expert was administering chloroform. The patient, a lady aged twenty-five, was to be operated upon, and chloroform was selected as the anæsthetic; but the report before us does not state the particular reason for this choice. The patient is said to have fainted during the administration, and, although measures were promptly adopted to restore animation, they proved futile, and death resulted, according to the lady's personal medical attendant, from cardiac syncope. To whatever cause it may be attributed, it would seem that the mortality under this anæsthetic is increasing, in spite of the fact that, as a rule, students have more careful instruction in the administration of anæsthetics than they formerly received.

PROPOSED TEACHING UNIVERSITY FOR LONDON.

DURING the past week various conferences have taken place between the representatives of King's and University Colleges, the medical corporations, and the medical schools, as suggested by the Lords of the Privy Council. Special meetings of the Comitia of the Royal College of Physicians and of the Council of the Royal College of Surgeons were also held on Thursday for further consideration of the question. The proceedings of the former body were declared to be *secreta Collegii*. The report of what took place at Lincoln's-inn-fields will be found in another column.

ALCOHOL AND LONGEVITY.

WE publish to-day a letter from Mr. Ralph Price Hardy, the actuary of the United Kingdom Temperance and General Provident Institution, upon the subject of the bearing which the recorded experience of that Society has on the important question as to the effect of abstinence from alcohol upon the prospect of longevity. Mr. Hardy writes to repudiate the suggestion that the peculiar features exhibited by the Society's record is in any appreciable measure due to the transfer of risks from the Temperance Section to the General Section. As no one should be in a better position than he to know the facts of the case, we readily admit that his testimony on the point is a fact of great importance in the discussion which might well enough clear up the doubt to which in our former note we gave expression. But Mr. Hardy, curiously enough, does not give us his facts, but only his conclusions, which rest—so far as his letter goes—on a line of argument that is clearly not conclusive. He says that during the decennium 1881–1890 there were no more than 490 transfers from the abstainers' group to the general group; and therefore, says he, "if any deflection could be attributed to the transfers it must be very small indeed." We cannot follow the argument. The table which Dr. Ridge supplied to us, and on which our original remarks were founded, showed that during the decennium which our correspondent has selected the actual claims arising in the temperance section numbered 1850, and that the expected claims were calculated at 2651. The difference is 801, and that is the measure of the "deflection" which has to be explained. Now, why should not a transfer of 490 individuals—assumed, for the purpose of argument, to be in deteriorated health—go a very long way towards explaining this "deflection"? Our correspondent has another bolt, which, however, goes equally wide of the mark. He says that during the same period there were 725 transfers from the general to the temperance section, and that on the grounds we have suggested these transfers should, by parity of reasoning, have weakened the temperance section. But, by parity of reasoning, they should do precisely the reverse. The point to be met is this: Alcohol is a medicine as well as a beverage, and many people have recourse to it as such. Now, the people who take alcohol medicinally will be a deteriorated body of people in respect of health. But there is no reason why a person who begins to abstain from alcohol should be an invalid. The reasoning, therefore, does not apply to these tranfers, and we are disposed to agree with our correspondent that they could not, in any appreciable degree, affect the statistical result. Mr. Hardy's contribution adds to the interest of the discussion, but does not much advance it; and we will now repeat, with a special allusion to him, the observation with which we concluded our former note: "The point is one that stands greatly in need of elucidation, and if those who have command of the very large statistical data which must have accumulated in the United Kingdom Office would make a full disclosure, they would certainly produce a result not of merely statistical interest, but also of great public value."

INTERCONTINENTAL AMERICAN MEDICAL CONGRESS.

AT a meeting of the American Medical Association, held at Washington on May 5th, it was resolved, on the motion of Dr. Charles A. L. Reed of Cincinnati, to extend a cordial invitation to the medical profession of the western hemisphere to assemble in the United States in an Intercontinental American Medical Congress. The time and place of this gathering will be fixed at a meeting to be held on Wednesday, Oct. 14th, 1891.

ABNORMAL RHYTHM OF THE HEART.

IN the *Gazeta Lekarska*, 1890, No. 49, Dr. Pawinski contributes a paper upon what he terms "the pendulum rhythm of the heart." He remarks that it is a well-known fact that occasionally the sounds of the heart, as heard at the apex, are indistinguishable from one another as regards their force, and follow each other at equal periods of time. Stokes designated this symptom "embryocardia," because a similar rhythm is peculiar to the embryo. The pendulum rhythm is distinguished from the galloping rhythm, first, by the fact that the loudness of the sounds and the arterial pressure are considerably greater in the former; and, secondly, by the symptom occuring not only when the pulse is quickened, but also when it is slower than normal. Pawinski observed the pendulum rhythm under the following conditions: 1. In kidney disease, chiefly in interstitial nephritis before any other symptoms of the disease presented themselves. 2. In atheromatous conditions of the arteries; when there was considerable cardiac hypertrophy; in some cases of nervous disease in which, although no atheroma could be detected, there was considerable distension of the arterial walls. It was also noticed in cases of phthisis when there was infiltration of the anterior part of the left lung and the heart was surrounded above and to the left by the hardened mass. The pendulum rhythm was found to accompany the following

conditions of the circulatory organs—(1) Increased pressure in the arterial system; (2) increased action of the heart; (3) rapid as well as slow pulse. The prognosis is not so unfavourable as in embryocardia; the latter denotes a weakened action of the heart, and is generally a sign that death is approaching, whilst the pendulum rhythm only implies increased resistance in the circulation. Pawinski then compares this condition with the "galloping" action of the heart, which he also does not regard as an absolutely unfavourable symptom; he has observed the pendulum rhythm pass into the galloping action during auscultation when the heart's action has been quickened by mental or bodily excitement.

DECLINE OF INFLUENZA.

THE Registrar-General's mortality returns for the week ending July 4th satisfactorily demonstrate that the influenza epidemic is now rapidly subsiding. The total death-rate for London has fallen to 16·8, from 19 in the preceding week and 23 for the week ending June 20th. The deaths primarily attributed to influenza, which six weeks ago amounted to 319, were last week only 56; and there has been a similar decline in the mortality from respiratory diseases, although the number of deaths (237) for the week is 29 in excess of the corrected average. It may further be noted that the decline in the death-rate has been tolerably general in all the large towns, as shown by the following examples, in which the present rate is contrasted with that existing in the same places four weeks previously. Thus in Birmingham it has declined from 30·9 to 17·3; in Blackburn, from 37·6 to 22·9; in Cardiff, from 21·6 to 14·8; in Leicester, from 21·2 to 15·7; in Liverpool, from 31·4 to 20·2; in Manchester, from 29·1 to 23·1; in Nottingham from 27 to 13·2; and in Sheffield, from 22·9 to 17·5.

DR. OLIVER WENDELL HOLMES.

AN editorial article in a recent number of the *New York Medical Journal* gives some interesting details of the genial Dr. Wendell Holmes, who is said to be fitting himself to compose his poetic survey of long life from a personal experience of the years beyond the Psalmist's allotment. He has of later years been a close student of the art of personal hygiene, and since his eightieth birthday in 1889 his sanitary vigilance has been incessant. Knowing that bronchitis and pneumonia are the dread enemies of old age, his rooms are furnished with thermometers, barometers, aerometers, and every other kind of instrument that will help him to ward off exposure to chill and cold. He does not rise in the morning in winter until he has ascertained that the temperature of his rooms and bath are at the required height. Dr. Holmes governs his life by rule; his meals are the product of much thought and experience, and he allots the amount of time to be expended on literary work, reading, and exercise by fixed and unalterable rules. He was never robust, but his maturer years have found him still hale and uncomplaining, whilst intellectually he is still vigorous.

"ELECTROCUTION."

A WORD of barbarous sound has this week been added to our language, a word as barbarous as the deed it expresses. It means the taking of human life by violence through the action of electricity. Salmoneus with his brazen thunder is now out-Heroded. His thunder was the mere terror; this is the blow. Four human beings have been "electrocuted" in New York on a seventh day of July in this year of, what is ironically called, human redemption. About some of the reports of this deed of horror there is a sound of actual exultation as if some wonderful discovery had been made, or some great triumph of human skill had been performed. But the reports vary in details. One set of witnesses say that the proceeding was "an unqualified success;" another, and medically skilled witness, declares that it was the Kemmler business over again, that the shocks in each case had to be repeated, and that, if he were not bound to silence, he could make out of the transaction a thrilling story. We wait for further statements before we venture to comment on the "unqualified success" of this scientific experiment. Meantime one or two questions will force their way. Why, if everything was so certain, was there so much mystery? Why were all reporters excluded from the ceremony? Why is Dr. Daniels, who was present, unable to describe in the fullest manner all that he witnessed? Why is there such withering detail about the ghastly apparatus of death and the action of the apparatus? If the experiment had referred to testing a cable or a new telephone, the whole of the record would have been centred in the results. Why not in this experiment? Next week we hope we shall know more, and although we are not at this moment profoundly satisfied with all that has been told, one fact does look better than in the Kemmler case—namely, that this time no member of the body medical did himself the pleasure of acting the executioner. So far so good.

FIFTY YEARS' MORTALITY STATISTICS IN LONDON.

THE remarkably low rates of mortality that have been recorded in London in recent years suggested that the population was over-estimated, and the results of the recent census proved that this suggestion was to some extent warranted, as the old estimate for the middle of this year, based upon the rate of increase between 1871 and 1881, was more than a quarter of a million, or 6·4 per cent., in excess of the new estimate based upon the population enumerated at the recent census. This error of estimate has caused an understatement of the death-rate in recent years, which reached its maximum in 1890, and it is well to ascertain what this maximum of error was. The death-rate in London last year, according to the Registrar-General's Annual Summary, published a month or two since, was 20·3 per 1000; whereas, on the assumption that the rate of increase of population in the metropolis was equal throughout the ten years, it may be calculated that the true death-rate in 1890 was 21·8, or 1·5 above the rate based upon the over-estimated population. The error in the published rates in each preceding year was of course smaller, and, after due correction, the mean rate for the ten years 1881-90 was 20·5 instead of 19·9, as published in the last Annual Summary. The death-rate in London, as was the case with the death-rate in the whole of England and Wales, was practically stationary during the thirty years 1841-70; it was 24·8 in 1841-50, 23·7 in 1851-60, and 24·4 in 1861-70. In the following ten years 1871-80, however, the rate fell to 22·5, showing a decline of 7·9 per cent. from the rate in the preceding ten years; and in the most recent decennium the rate further fell to 20·5, showing a further decline of 8·9 per cent. The rate during the last decennium declined from 21·5 in 1882 to 18·3 in 1889, but rose again in 1890, under the influence of the epidemic of influenza, to 21·8. It is worth noting that if we divide the last twenty years, during which the decline in the death-rate has been so marked in London (as in the other large English towns), into quinquennial periods, the decline of mortality appears to have been steadily maintained; the mean death-rate in these four quinquennial periods has been 22·9, 22·2, 20·9, and 20·0 per 1000 respectively. Such a continuous decline in the mortality of the largest city of the world, with its large proportion of helpless poor, may safely be regarded as affording conspicuous evidence of

sanitary progress. The corrected mean death-rate in London during the ten years 1881–90 was no less than 2 per 1000 below the mean rate during the same period in the twenty-seven large provincial towns dealt with in the Registrar-General's weekly return.

THE PROPER HOURS OF SLEEP.

THE necessity of devoting to sleep several hours in each day is too obvious to admit of serious question. The proper selection of these hours is also, for those who would prolong and usefully employ life, a very needful consideration, though its importance may to some be less evident. We have all met with persons, outside of hospitals and of Parliament, who do half or more of their daily work after nightfall, and sleep long after earlier rising men are awake and busy. Some of these are wont to extol the comfort of their morning slumbers. They describe as immense the refreshment they receive from six or seven hours thus agreeably spent, and no wonder, for the sense of present satisfaction must be very marked, and that for definite reasons. Man, in common with most of the animal creation, has accepted the plain suggestion of Nature that the approach of night should imply a cessation of effort. If he ignores this principle his work is done against inherited habit, and, so far, with additional fatigue. It follows, too, from our ordinary social conditions, that he must use artificial light, and sustain its combustion at the cost of his own atmosphere. Naturally, therefore, when he does rest his relief is in proportion to his weariness. As in many other cases, however, sensation is not here the most reliable guide to judicious practice. Established custom affords a far truer indication of the method most compatible with healthy existence. The case of the overworked and the invalid lends but a deceptive colour to the argument of the daylight sleeper. In them excessive waste of tissue must be made good, and sleep, always too scanty, is at any time useful for this purpose. For the healthy majority, however, the old custom of early rest and early waking is certain to prove in future, as returns of longevity and common experience alike show that it has proved in the past, most conducive to healthy and active life.

OPERATION FOR MICROCEPHALUS.

DR. RAUSOHOFF describes in the *Philadelphia Medical News* a case in which he operated for this condition. The patient was a female child of three years and a half, well formed in body, ruddy-faced, and healthy looking. The child was unable to sit up or to walk; there was almost incessant twitching of the ocular muscles; she gave no evidence of knowing her mother or of being conscious of anything about her. Swallowing was accomplished with difficulty, and there was regurgitation of food. The left arm was rarely used, and its range of motion was small. The head was small and of sugar-loaf shape, the sagittal suture showed itself as a distinct ridge with a well-defined groove on the right side, and it was stated by the mother that the head had "closed" soon after birth. The operation carried out was Lannelongue's, the incision being made on the right side of the middle line, and after a button of bone had been removed by trephining, a long strip of bone three-eighths of an inch wide and five inches and a half long was removed from the right side of the skull. Drainage was by catgut, and bleeding from the scalp was minimised during the operation by Esmarch's strap. With the exception of a slight fistula at the posterior part of the wound, healing was quite satisfactory, and three months and a half after the operation the child showed a notable improvement both mentally and physically. The antero-posterior measurements of the head remained unchanged, but the transverse measurements were distinctly increased. Mentally the patient is said to resemble a child of six years. She reaches for a bright object with either hand, and amuses herself with picture books, the difficulty in swallowing has disappeared, and, although support is still necessary in sitting up, the patient is stronger in this respect than formerly, and evinces considerable interest in her surroundings. It is to be hoped that the improvement which has evidently begun may continue, and that the ultimate result may be such as to encourage the hope that a hitherto hopeless and distressing condition has at last been brought within measurable distance of relief.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Goldscheider has been recognised as *privat-docent* in Medicine.

Bonn.—Dr. Brennecken has been recognised as *privat-docent* in Odontology.

Buda-Pesth —Dr. A. Hirschler has been appointed *docent* in Diseases of the Digestive Organs.

Cagliari.—Dr. Baldi has been appointed to the chair of Pharmacology.

Genoa —Dr. Morselli has been promoted to the chair of Mental Diseases.

Jassy.—Dr. C. Thiron has been appointed to the chair of Pathology and Therapeutics.

Marburg.—Dr. Hüter, *privat-docent* in Gynæcology, has been granted the title of Professor.

Messina —Dr. Gaglio, of Bologna, has been appointed to the chair of Materia Medica and Pharmacology.

Munich —Dr. Klaussner has been promoted to an Extraordinary Professorship of Surgery.

Padua.—Dr. F. Lussana has been recognised as *privat-docent* in Medical Pathology, and Dr. Lampugnani as *privat-docent* in Operative Medicine.

Rome.—Dr. E. Rossi has been promoted to the Professorship of Otology. Dr. Curatello has been recognised as *privat docent* in Obstetrics and Gynæcology, and Dr. Parinetti as *privat docent* in Ophthalmology.

St. Petersburg (*Medico-Chirurgical Academy*). — Drs. Rybalkin and Kireieff have been recognised as *privat-docenten* of Neurology and Obstetrics respectively.

Vienna.—Dr. Grossman has been recognised as *privat-docent* in Laryngology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. S. Ascione, lecturer on Anatomy in the University of Naples.—Dr. W. Weiss, Professor of Surgery in the Bohemian University of Prague.

DR. W. J. COLLINS has been appointed Assistant Surgeon to the Royal South London Ophthalmic Hospital.

CHOLERA is prevailing with considerable intensity in Abyssinia. Quarantine is in force against arrivals from the Gulf of Alexandretta, in view of the cholera at Aleppo.

THE President of the Republic of Venezuela has conferred upon Mr. Walter Bridgeford, M.R.C.S. Eng., L.R.C.P. Edin., medical officer of the Yuruari and Potosi Gold Mining Companies, Venezuela, the decoration of the 4th Class of the Order of the Liberator (Simon Bolivar) in recognition of the many services which he has rendered to the Government.

MR. JOHN CROFT, whose term as surgeon to St. Thomas's Hospital expired on Monday, the 6th inst., made his last visit to the wards in an official capacity on that day. He was attended during the round by a large class of students and old pupils, and many others attended at the end of the visit in order to take leave of him. The vacancy amongst the surgeons will be filled by the appointment of Mr. W. Anderson.

REPORT OF THE LANCET

Special Sanitary Commission

ON

SANITATION AT SHEFFIELD.

PART II.

THE foul nuisance and danger resulting from the use of middens being generally acknowledged, the impossibility of applying the pail system to so hilly a town as Sheffield being also admitted, sanitary reformers have sought, by every means, to introduce water carriage drainage. To favour this a considerable number of sewers were built previously to the year 1876, but when the Rivers Pollution Bill was passed the laying of sewers was suddenly stopped. The sewers had their outfall into the river Don, which passes through Sheffield, and rendered the town liable to prosecution under the new Act framed to prevent the pollution of watercourses. The Don was already about as black as ink. In 1882, however, powers were obtained from the Local Government Board to build main sewers and sewage disposal works. These latter are situated at Blackbourne Meadows, where the sewage is clarified before the effluent is allowed to return to the river. Main sewers and branch sewers were built in various parts of the town, and some five hundred manufacturers received notices to cease draining into the river, and to avail themselves of the sewers instead. Little or no opposition was offered, and now the Don is remarkably clean. It would be difficult to find a cleaner stream going through so thickly populated a manufacturing town and district. Nearly all the branch sewers at Sheffield have very good falls; in fact, if anything the falls are too steep, but the main sewers that follow the banks of the river have scarcely any fall. These latter are provided with numerous storm overflows; and, by very careful management and supervision, are reported as working satisfactorily, though the fall in many parts does not exceed 1 in 500. In several streets, as already stated, the fall is equal to 1 in 4, and there are 200 streets where the fall is equal to 1 in 12. It is probably this precipitous natural drainage that has saved the town of Sheffield; its sewage-saturated subsoil has thus been able to rid itself of its impurities. Many of the old sewers have been improved and new ones built, but there still remain some streets that have no sewers at all, and others have but old rubble drains, which are worse than useless. These rubble drains consist of a flag stone on the top and bottom of the drain, the sides being held up by rough stones not cemented. Such drains, of course, leak along the whole of their course. They naturally are not self-cleansing, and facilitate the accumulation and stagnation of heavy deposits. It is needless to insist that such sewers should not be allowed to exist for a day longer than can be helped. They constitute a nuisance and a danger of so evident and undeniable a character that there can be no sort of excuse for tolerating their continued existence.

It may now be asked how it is that Sheffield possesses main sewers, branch sewers in almost all the streets, and very extensive sewage disposal works, and yet, with a few rare exceptions, there are no watercloseta? What is more, almost every house actually drains into the street sewer. In most of the yards there is a gully which carries away rain-water and slop-water into the street sewer, yet close to this drain is built a midden, and some of the middens, as already described, have overflows communicating with this drain. The most difficult, the most expensive part of the work, is therefore already accomplished. There only remains to substitute a watercloset for the middens, and a few feet of drain-pipes would suffice to connect these closets with the drains that already communicate with the street sewers. It seems extraordinary that this has not been done long ago. The first obstacle, however, was the difficulty of obtaining a sufficient water-supply to flush the closets. A private company provided Sheffield with its water for drinking and other purposes; the town corporation could not come to terms with this company for the supply of water for the flushing of closets; the corporation went to Parliament for powers to expropriate the Water Company and purchase their plant; this involved the town in a tedious and expensive struggle, in which they were finally successful; and now for three years the town of Sheffield has owned its own waterworks. Still the middens are allowed to subsist; the watercloset system has not been introduced.

Many reasons are given to account for this delay. There are some 67,000 houses occupied in Sheffield, but there are not any flats in the town, no large tenement houses, hardly any lodgers. As entire houses, or rather cottages, can be rented for three shillings a week, even poor labourers have a small house all to themselves. But such small houses are not provided each with separate closets. There is generally only one closet for three or four houses; in some instances only one closet has been provided for eight houses. If these midden closets were converted into water-closets it would be difficult to keep them in order, and when the drain was stopped up through carelessness, it would be almost impossible to bring the responsibility home to the offender. This is all true enough, but this objection is not special to Sheffield. It was raised everywhere, and yet wherever the watercloset system was introduced it has been overcome more or less effectively. Water-closets will not be more strange to the people of Sheffield than they were to the people of London when first applied to the metropolis. There will of course be many accidents, many inconveniences. These still continue to occur in London, and it would be no difficult matter to find any number of waterclosets in London that are even now in a most unsatisfactory, in a most filthy and insanitary condition; yet no one would propose to re-establish in London the cesspools and middens of the past.

The Sheffield authorities have been greatly exercised in their minds as to what system of watercloset could be established to replace the midden closets now used in common by several households. To give a separate pan closet with two-gallon flush to each household is the only true and thorough solution of the problem. Any one closet that was damaged would have to be repaired by the owner or tenant, whose responsibility could not be denied if each house had its own closet. But this is altogether too ambitious and too expensive a scheme to be entertained by the authorities that govern Sheffield. It is therefore the trough system that finds the most favour; but objections are raised to the necessary daily flushing and cleaning out of the troughs by scavengers. What is desired is an automatic flushing tank so constructed that it could not be damaged by the rough people who frequent the poor quarters and would be tempted to tear off and sell any brass fittings that might be visible. Many automatic flush tanks have been tested; but here again a difficulty special to Sheffield has arisen. The water of this town is especially peaty, and if there are any very small pipes in the apparatus these are apt to become blocked by the peat. Such small pipes do exist in some well-known automatic flush tanks. They are introduced so as to allow the cushion of compressed air to escape, in order that the head of water contained in the cistern may charge the syphon. But this obstacle is now overcome; for we were shown an automatic flush tank which has no small pipes. It works by means of a spoon-shaped vessel very carefully balanced to tilt over when full of water. The flush is powerful, and the apparatus does not seem likely to get out of order. Also, what is an important consideration to the economically disposed town councillors of Sheffield, the flush can be so organised as to take place only at very long intervals. It is calculated that to flush all the troughs it is proposed to establish in Sheffield 400,000 gallons of water would be required for each flush. Four flushes per day would therefore mean a consumption of 1,600,000 gallons of water in the twenty-four hours. But there is plenty of water in the neighbourhood of Sheffield, and the actual supply could be easily increased. For our part, and whatever the cost may be, we cannot view with approval this wholesale application of the trough system. This system may just be tolerated where we have to deal with a very low and rough population, who cannot possibly be made to refrain from breaking and fouling the traps and pans &c. of proper waterclosets. It would indeed be levelling downwards to thus place the great majority of the inhabitants of Sheffield on so low a level. Sanitary reform should raise and improve the habits of the people, and not become subservient to the roughness they have acquired in

days when less care was taken to preserve the health of the community.

There is now no longer any excuse for further delay; for Sheffield not only possesses its own waterworks, an extensive system of sewers, and good sewage disposal works, but a new set of by-laws have just come into force, which arm the authority with the power to compel owners to change their middens into waterclosets. As this conversion would be a benefit to the general health of the town, the corporation pays a third of the cost of such alteration, and the owner, if poor, may pay his two-thirds of the expense by instalments. This is a very practical arrangement, and should greatly facilitate the much-needed transformation. What then is to prevent Sheffield from being properly drained? The zymotic death-rate for 1888 was equal to 3·69 per 1000; during the previous ten years it amounted to an average of 3·15 per 1000. The zymotic death-rate for 1888, in the twenty-eight principal towns, was only 2·41. In 1889 the zymotic death-rate for Sheffield fell to 3·39 per 1000, but this was still considerably above the average of the other great towns, which for 1889 amounted to 2·73. The necessity for immediate action is thus evident, and it may well be asked why should Sheffield wait?

The new by-laws will do more than aid to secure the proper draining of the town. They will facilitate the re-housing of the poor; which, however, is too big a question to discuss at length on the present occasion. Suffice it to say that these by-laws ought to put an end to jerry building, but two recent magisterial decisions have greatly discouraged those who are pressing for the immediate and thorough application of the new regulations. This is all the more lamentable as some of the property in Sheffield is in a truly deplorable condition. The poorer houses are built in courts which are entered from the street by passages that are often less than a yard wide. In these courts the pavement is generally broken, there are accumulations of stagnant water, and here also are the closets and middens. In some of the courts, apart from the inhabited houses, little shanties may be found which are occupied by file grinders, who work there during the daytime, thus adding to the number of persons who make use of the already insufficient supply of closets. Some of these shanties are terribly cold, damp, and unhealthy. In one which we visited the front wall was only five feet high, and from it a rough roof slanted upwards towards a high partition wall. The shanty was about ten feet wide, and sitting close packed, side by side, were seven file grinders. The floor was not paved. These men worked on the bare earth, which was rendered damp in part by the overflow from a midden built by the side of the shanty. Everything around was black, dirty, and noisome. The workmen had not proper breathing space, and the air they inspired must have been contaminated by their surroundings. The men were all of them more or less ailing—from influenza, they said. One of their companions, who used to work there, had died but a few days previously to our visit. Many other shanties are built in the same way—that is, they consist only of rough stone or brick walls, and a roof which generally lets through a very fair percentage of the rain falling upon it. File grinders rent a seat or bench in such places for sixpence per week; and it certainly cannot be expected that for a penny a day per man anything like a decent workshop can be provided, still less can good closets be attached to such shanties. We do not at present propose to enter upon the question of the housing of the poor or to criticise the sanitary condition of the factories and workshops of Sheffield, but allude to the shanties which are densely packed with workmen, and are built in the private yards of private houses, as another instance of the difficulties in the way of properly draining a town like Sheffield. In such yards, where, besides the inhabitants, there are a number of people who come and work during the daytime, a trough closet for common use might be introduced. Its presence would be excusable. But otherwise we do not think it is too much to ask, for the preservation of decency and of public health, that each private dwelling should have a watercloset of its own. We would therefore, and before it is too late, energetically protest against the proposed wholesale application of the trough closets. We would also, in conclusion, repeat that Sheffield has waited long enough, has waited too long, and the time has come for the prompt application of a general system of drainage, which, by doing away with the middens, will render Sheffield more worthy to rank side by side with the great towns of England.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FROM the annual report of the Conservator, Professor Charles Stewart, we learn that in the Department of Pathology the additions during the past year have been made chiefly with the view of supplying some of the more obvious deficiencies in the pathological museum; but though the majority of the preparations are such as are frequently met with, yet they are not without interest. As examples of some of the rarer additions, the following preparations may be mentioned:—A long tubular dermoid cyst attached to the small intestine of an ox, which probably became associated with the bowel in the course of the development of the mesentery. The thickened skull of a child about six years old, which was found by the donor on the sandy shore of the island of Lamoo, in Zanzibar. A battle, in which 2000 people were killed and left on the shore of the island, took place in 1805, and to this date the specimen is assigned. In the opinion of a committee of the Pathological Society, the skull exhibits the changes "resulting from a severe degree of rickets, and corresponds with the form which is relatively common in animals." A myeloid sarcoma of the acromial end of the clavicle, successfully removed by operation, claims attention from its unusual situation. Illustrations of an interesting deformity of the spine: One is a good example of spondylolisthesis occurring at an early age, while the other shows the morbid anatomy on which the deformity as a rule depends. A search through the osteological collection of the museum has brought to light several other examples of this lesion, known as spondylolysis inter-articularis, belonging to skeletons of very different races. An imperfectly descended epididymis become the seat of strangulation by torsion of its mesorchial pedicle, and clinically resembled an acute strangulation of the intestine.[1] To the teratological collection three valuable specimens are added: one a curious malformation of the spine of a rabbit, and two others showing persistence of the second branchial cleft. With the further object of enhancing the value of the collection, microscopical sections of all tumours, and such preparations as needed a histological examination, have been made, and will be kept in a cabinet for the purpose, to which access may be obtained by those desirous of consulting them. The work of the department has also included the dissection and histological examination of many specimens not required for the museum, but which have been received from time to time, and of which a pathological report has been duly prepared and returned. Advantage has been taken of the opportunity presented by the remounting of many old preparations to make microscopical sections of all growths not previously examined.

In the department of human and comparative anatomy the President has given one of the most valuable additions to the collection: thirty-nine admirable wax models made by the late Mr. Towne of Guy's Hospital. From Mr. J. Lister have been received ten skulls, of which two are of former kings of Fakaofu, and probably are of unmixed race, the remainder from Tonga. Mr. J. Andrews of Guildford has presented to the museum a probably unique specimen of a hermaphrodite trout, *salmo fario*. Mr. Tegetmeier: A specimen of hermaphrodite mackerel. Some splendid examples have been brought together by Professor Stewart to illustrate secondary sexual characters. Numerous admirable dissections have been made by Mr. W. Pearson, chiefly showing the muscles of the digits, together with other preparations in different departments of the museum. The Teratological Series has been removed from the middle museum to the lower gallery of the new small museum, the upper gallery being devoted to the display of drawings and photographs. The Physiological Series in the eastern museum has been extended into the space provided by the removal of the teratological specimens. The Osteological Catalogue, Part III., Class Aves, by Dr. Bowdler Sharpe, is now completed. Mr. B. T. Lowne is engaged in making a new edition of the Teratological Catalogue, the number of specimens in this department having nearly doubled since the publication of the

[1] We have published an account of this case in THE LANCET, "Mirror of Hospital Practice," vol. i. 1891, p. 1096.

former catalogue in 1872. Dr. Masters has completed a manuscript catalogue of the numerous specimens of vegetable pathology and teratology lately received from the Royal Gardens, Kew.

Amongst the specimens exhibited on July 2nd at the council meeting of the College were two models in wax executed for the museum by Messrs. Baillière, Tindall, and Cox in their London studio. One is from a case under the care of Professor William Anderson, and was supposed to be one of Rodent Ulcer, but some doubt exists as to the nature of the disease; it is situated below the deltoid on the left arm. The other model is from a case under the care of Mr. Morrant Baker, and depicts a large tumour of the scalp in a man aged twenty-six.

METROPOLITAN HOSPITAL SUNDAY FUND

THE following are the principal sums received at the Mansion House since our last issue in aid of this fund. The total now collected amounts to nearly £41,500

Christ Church, Lancaster Gate (the Rev. C. J. Ridgeway)	£922	2	9
Holy Trinity, Chelsea (the Rev. Prebendary Eyton)	175	2	9
St. Columba, Pont-street (the Rev. D. McLeod, D.D.)	92	10	0
West Ham Parish Church	22	5	5
Oratory, Brompton	42	12	0
St. John the Evangelist, Blackheath	47	0	5
Spanish and Portuguese Synagogue	27	19	9
J. S. A.	20	0	0
Greenwich Parish Church	24	16	4
Dartford Churches	25	19	0
Bromp ton Parish Church (the Rev. W. Covington)	350	0	8
Portman Chapel, Baker-street (the Rev. H. N. Sherbrooke)	163	17	4
Grove Park West Parish Church	21	2	4
Christ Church, Westminster-bridge-rd (Rev. Newman Hall)	20	4	7
Upper Holloway Baptist Chapel	35	9	3
Bromley (Kent) Congregational Church	50	0	0
Bloomsbury Chapel	34	12	0
New Court Chapel, Tollington-park	29	2	1
Woodford Congregational Church	22	12	7
St. Peter, Cranley-gardens (the Rev. F. E. Ridgeway, D.D.)	212	15	6
Stepney Parish Church	35	8	5
Holy Trinity, Upper Tooting	28	13	7

ROYAL BRITISH NURSES' ASSOCIATION.

AN influential deputation from the Royal British Nurses' Association last week presented H.R.H. Princess Christian with a silver wedding gift in the form of a diamond sunstar, and the following address:—

May it please your Royal Highness,—We are deputed on behalf of some hundreds of members of the Royal British Nurses' Association to offer to your Royal Highness, on the occasion of your silver wedding, a small memento of the heartfelt gratitude and deep respect entertained for your Royal Highness by trained nurses in every part of the British Empire; and in the light of that signification, and not in that of its mere intrinsic worth, we feel confident that you will be graciously pleased to regard this gift. The profession of nursing is passing through a stage of development through which every other skilled calling, in every age and in every country, has in its turn been compelled to pass—the process of union, organisation, and reform. In many instances these results have been hastily and with many imperfections brought about by the outside pressure of public opinion. In the case of nurses, the urgent need for improvements has been recognised by themselves and by medical men, and the establishment of the Royal British Nurses' Association was the outcome of the feeling thus aroused. In three years the Association has achieved a measure of success and usefulness hitherto unprecedented amongst professional societies, and although much of this is due to the strong assistance and shrewd advice of the medical members, it is universally acknowledged that, in a still greater degree, the advance of the Association must be ascribed to the steadfast support and wise counsels rendered to it by your Royal Highness. Every year, thus far, has found the Association stronger, and its principles of protection for the sick and justice for nurses more widely adopted. Every year in the future will doubtless see a diminished opposition to the common sense and simple programme which it advocates. But the Association has had to bear the antagonism which all attempts at reform in this country seem to engender, and more than once it has been checked and hindered in its work. Through doubts and difficulties within, and many discouragements without, your Royal Highness has led the Association steadfastly and steadily forward. And the importance of this is not limited to these islands, nor even to the British Empire; because nurses in all parts of the world are carefully watching the progress of our work, and our success means imitation everywhere. A movement which must become in time world wide in its extension, which must result in the greatest public benefit and professional improvement, owes more in its inception and progress hitherto to your Royal Highness than can ever be expressed adequately, and to which the future history of nursing can alone do justice. To-day, as representatives of nurses in every part of Her Majesty's dominions, we beg your Royal Highness to believe that nurses are deeply grateful to you for your great personal exertions upon their behalf; that they earnestly pray that God will for many years to come preserve you in health and strength, bestow upon you every blessing, and keep far from you all sorrow and distress. In dutiful respect they tender to you Royal Highness all good wishes for your silver wedding day, and in commemoration of it they ask your gracious acceptance of this small ornament.

H.R.H. Princess Christian replied: I can scarcely express the very great gratification I feel at the kind words which accompany the beautiful gift that has been presented to me by the members of the Royal British Nurses' Association. This gift is a token to me of the kindly feelings borne me by the whole Association, whose welfare and well-being I have so near at heart. I would like these few words to convey my heartfelt gratitude to all the members, and express to them how very much I admire the beautiful ornament chosen for me. It will ever be regarded by me as one of my real treasures. I should wish also to assure you all of my unceasing interest in the work of the Association, in the furthering of which I shall never weary. I feel certain that any opposition it may meet with will only tend to unite us all still more firmly, and in that close union lies our strength. But I am confident also that the singleness of purpose which is our aim will in time be fully recognised, and then all opposition will cease.

SOCIETY FOR THE STUDY OF INEBRIETY.

AT a quarterly meeting held in the rooms of the Medical Society of London on Tuesday last, the president, Dr. Norman Kerr, in the chair, an interesting account of Ruthenian inebriety was given by Chevalier Max de Proskowetz, president of the Austrian Inebriety Society. The Ruthenians lived in Galicia and Bucovina, and were a primitive, simple, and unaffected pastoral race, speaking a Russian dialect, though Austrian subjects. They had become very drunken, and last year the Austrian Inebriety Society had opened a special campaign against Ruthenian inebriety by enrolling peasants as abstaining members. The Ruthenians could not drink moderately. The chief actor in this successful anti-drinking campaign had been a drunken farmer who, while drunk, killed his best friend. Under Austrian jurisprudence, which allows of a minor view of a crime done in liquor without premeditation, he received only one and a half years' imprisonment. He then renounced drink. The author submitted the provisions of the Austrian penal code discriminating between crimes committed in intentional and in accidental intoxication. A discussion ensued, in which the President, Mr. John Hilton, Dr. Williams, Mr. Joseph Smith, Mr. Grey of Walsall, and Dr. Paramore took part, and a vote of thanks was accorded to Chevalier Max de Proskowetz.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Salford Urban District.—The general death-rate for Salford during 1890 reached 25·1 per 1000, an increase on the previous quinquennial rate, and Mr. C. Paget attributes the increase mainly to acute lung diseases, which have been very prevalent. Diphtheria, too, was epidemic, and a special report, to which we at the time drew attention, was issued as to it. The maps now appended to Mr. Paget's report, each of which shows the distribution of the houses attacked with infectious disease, are of the greatest value, for not only does each disease receive a separate chart, but houses attacked, instead of mere deaths, are shown. The new Ladywell hospital is approaching completion, and it may be expected to aid very materially in the prevention of disease and the lowering of mortality. Improvements have been made in the inspectorial staff, one inspector being especially allotted to the work in connexion with common lodging-houses; progress is being made in dealing with the insanitary state of dwellings, and it is evident that sanitary progress is being well maintained. Amongst the future measures of improvement that are called for are the provision of one or more public abattoirs and of a

refuse destructor for one of the divisions of the district. The total number of cases of infectious disease notified during the year was 2177, of which 985 were scarlet fever, 694 diphtheria, and 383 enteric fever. Of the notified diseases, 39 per cent. were received into hospital for isolation purposes.

Newton Abbot Sanitary Districts.—These districts include the Newton rural, with a death-rate of 17·2; the Wolborough urban, with a rate of 16·2; and the Dawlish urban, with a rate of 18·7 per 1000 living; the latter rate being reduced to 14·2 by exclusion of deaths amongst visitors. The prevalences of infectious disease, which were by no means numerous, are considered by Mr. Wm. Harvey, who expresses himself hopefully concerning future improvements as to water-supply in several parts of the rural district. He also points out that the system adopted at Dawlish of granting certificates as to the health of lodging houses is answering well.

Glanford Brigg Rural District.—Mr. J. B. Moxon records a mortality for 1890 at the rate of 15 per 1000, one of the lowest yet reached, and he states that the adoption of the Notification Act has enabled him to have recourse to measures of prevention that would otherwise have been impossible, but there appears to be no means for the proper isolation of first attacks of infectious diseases. During the year cases of fatal inflammation of the lungs occurred, resulting in ten deaths. This occurrence was held to have relation to certain faulty sanitary circumstances at Messingham, and it is stated that action was taken accordingly.

Thingoe Rural District.—Dr. C. S. Kilner enters into some detail as to the infectious fevers that prevailed during 1890, and he gives the general rate of mortality as 16 per 1000 living. Notification is in force, but no hospital exists to prevent the spread of disease thus heard of. Wells liable to pollution are being gradually closed, others are only subjected to the very questionable remedy of cleansing, certain measures of drainage are carried out, and houses unfit for human habitation are being dealt with.

West Sussex Combined Districts.—This combination of sanitary districts had last year a general death-rate of 13·3 per 1000, the extremes lying between 8·6 at Littlehampton and 25·4 at Arundel. In the latter district 11 fatal cases of enteric fever took place, the outbreak being associated with the use of a polluted water-supply—namely, that of the town pump well; and the outcome of it is that Dr. Charles Kelly again directs the attention of the sanitary authority to the need for seeing that a proper supply-water is laid on to every house, and that every closet connected with drains and sewers is provided with adequate means of flushing. The system of compulsory notification has now been adopted in nine out of ten sanitary districts in the combination, but it did not come into operation in four of them until the beginning of the present year. Amongst the matters with which Dr. Kelly deals somewhat exhaustively, the subject of vital statistics, in its various bearings, stands out prominently. He also points to the influence of sex, age, and season on health, to rainfall, duration of sunshine, soil, temperature, &c. Indeed, the report embodies a full account of all the matters having any bearing on the question of public health within the area of the combination.

Barnsley Urban District.—One of the most important improvements effected in Barnsley has been the erection of the Kendray infectious hospital, which, according to Dr. Sadler, has already turned out to be of the greatest value to the town and district. The small-pox pavilion has not yet been required for the reception of cases, but as it has been built on lines similar to those laid down by the Royal Commission on Small-pox and Fever Hospitals, and since it is intended to allow no air to pass out of it except after effectual burning of contained organic matter, we trust to hear favourable accounts of the building and of the results attained by it. A somewhat extensive prevalence of diphtheria occurred last year; 107 cases were reported with twenty-three deaths, but its means of origin and of spread were, as in so many other instances, not clearly made out. School precautions were adopted, and efforts were made to control those cases of throat disease which, though not recognised as diphtheria, were yet in all probability associated with the diffusion of infection. The decennial average death-rate is 23 per 1000, that for 1890 was 20·5.

Worsborough Urban District.—This district is also under Dr. Sadler's supervision, and here also some diphtheria occurred. One patient had before his illness allowed a cat suffering from some throat ailment to be in close contact with him, and it seems certain that the cat disease was infective and that it spread to two other cats in the same house. Worsborough had a death-rate of 20 per 1000 in 1890; it shares in the use of the Kendray isolation hospital, and it has other associations, such as a common water-supply, with the borough of Barnsley.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5744 births and 3197 deaths were registered during the week ending July 4th. The annual rate of mortality in these towns, which had declined in the preceding five weeks from 30·9 to 20·4 per 1000, further fell last week to 17·7, a lower rate than in any week since July, 1890. The rate was 16·8 in London and 18·5 in the twenty-seven provincial towns. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the twenty-eight towns averaged 26·2 per 1000, and considerably exceeded the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates last week in these towns were 13·1 in Birkenhead, 13·2 in Nottingham, 14·7 in Portsmouth, and 14·8 in Cardiff; the highest were 22·6 in Bolton, 22·9 in Blackburn, 23·1 in Manchester, and 24·6 in Wolverhampton. The deaths referred to the principal zymotic diseases, which had risen from 312 to 339 in the preceding three weeks, declined again last week to 309; they included 97 from whooping-cough, 75 from diarrhœa, 67 from measles, 27 from scarlet fever, 23 from "fever" (principally enteric), 20 from diphtheria, and not 1 from small-pox. These diseases caused the lowest death-rates last week in Brighton, Birkenhead, Oldham, and Nottingham; and the highest rates in Plymouth, Manchester, Liverpool, and Bradford. The greatest mortality from measles occurred in Preston and Liverpool; and from whooping-cough in Liverpool, Salford, Huddersfield, Newcastle-upon-Tyne, Leicester, Bradford, and Plymouth. The mortality from scarlet fever and from "fever" showed no marked excess in any of the twenty-eight large towns. The 20 fatal cases of diphtheria included 16 in London. No death from small-pox was registered last week in any of the large towns; 5 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and one in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet-fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 866, against numbers increasing from 859 to 891 at the end of the preceding three weeks; the patients admitted during the week were 91, against 88 and 76 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding seven weeks from 620 to 291, further fell last week to 237, but were 29 above the corrected average. The causes of 55, or 1·7 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Nottingham, Leeds, Newcastle-upon-Tyne, and in eight other smaller towns; the largest proportions of uncertified deaths were recorded in Bristol, Liverpool, Hull, and Leicester.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding four weeks from 25·2 to 21·8 per 1000, further fell to 20·6 during the week ending July 4th, but exceeded by 2·9 the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 13·9 in Greenock and 19·7 in Glasgow to 22·7 in Dundee and 25·3 in Leith. The 530 deaths in these towns showed a decline of 31 from the number in the preceding week, and included 15 which were referred to measles, 15 to whooping-cough, 12 to diarrhœa, 2 to scarlet fever, 2 to "fever," and not one either to diphtheria or small-pox. In all, 46 deaths resulted from these principal zymotic diseases, against 67 and 69 in the preceding two weeks. These 530 deaths were equal to an annual rate of 1·8 per 1000, which slightly exceeded the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had declined in the preceding three weeks from

27 to 18, further fell last week to 15, of which 11 occurred in Glasgow and 3 in Edinburgh. The deaths from whooping-cough, which had been 19 in each of the previous two weeks, declined to 15 last week, and included 7 in Glasgow and 3 in Dundee. The 12 fatal cases of diarrhœa were within three of the number in the preceding week; 5 occurred in Glasgow and 4 in Edinburgh. The deaths referred to different forms of "fever," which had increased in the previous four weeks from 3 to 7, declined again last week to 2, both of which were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 143 and 127 in the preceding two weeks, further declined last week to 106, but slightly exceeded the number in the corresponding week of last year. The causes of 64, or more than 12 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding three weeks from 27 to 17·9 per 1000, rose again to 21·1 during the week ending July 4th. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the city averaged 23·7 per 1000, the rate for the same period being 23·8 in London and 21 in Edinburgh. The 143 deaths in Dublin during the week under notice showed an increase of 22 upon the number in the preceding week, and included 6 which were referred to whooping-cough, 3 to "fever," and not one either to small-pox, measles, scarlet fever, diphtheria, or diarrhœa; in all, 9 deaths resulted from these principal zymotic diseases, against 10 and 5 in the preceding two weeks. These 9 deaths were equal to an annual rate of 1·3 per 1000, the rate from the same diseases being 1·8 in London and 2 in Edinburgh. The fatal cases of whooping-cough, which had been 1 and 3 in the preceding two weeks, further rose to 6 last week. The deaths referred to different forms of "fever," which had been 4 and 1 in the previous two weeks, rose again to 3 last week. The 143 deaths in Dublin last week included 31 of infants under one year of age, and 26 of persons aged upwards of sixty years; the deaths of infants showed a marked increase, while those of elderly persons showed a further decline from recent weekly numbers. Six inquest cases and 5 deaths from violence were registered during the week, and 53, or more than a third, of the deaths occurred in public institutions. The causes of 14, or nearly 10 per cent., of the deaths last week in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major James Shaw McCutchan, M.B., retires on retired pay (dated July 4th, 1891).

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon-Thomas Lowe Laxton, 2nd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry), to be Surgeon, ranking as Captain (dated July 8th, 1891).

INDIAN MEDICAL SERVICE.

Brigade-Surgeon J. B. Hamilton, M.D., officiates on the Administrative Medical Staff of the Army, with temporary rank, in medical charge of the Allahabad District, vice Deputy Surgeon-General Rudd, M.D.—Deputy Surgeon-General Collis is transferred to the home establishment.—Brigade-Surgeon A. F. Churchill, M.D., Medical Staff, to officiate on the Administrative Medical Staff of the Army, with the temporary rank of Deputy Surgeon-General, during the absence of Deputy Surgeon-General A. F. Bradshaw with the Hazara Field Force.

Surgeons to be Surgeons-Major (dated March 31st, 1891): Francis Frederic Perry, Pultoney William Dalzell, M.B., Stephen Little, M.D., Geo. Hart Desmond Gimlette, M.D., Christian Bernard Hunter, and Julian Carter Carington Smith, M.B.

The Commander-in-Chief in India is pleased to make the following appointment on his Excellency's personal staff:—Surgeon W. R. Edwards, M.D., I.M.S., to be Surgeon, vice Surgeon-Major C. W. Owen, C.M.G., C.I.E., resigned (dated April 1st, 1891).

The Commander-in-Chief in India is pleased to make the following appointments:—Surgeon-Major W. A. Gilligan to the officiating medical charge of the 19th Bengal Lancers, vice Surgeon M. A. Ker, on field service with the Hazara Expedition, 5th Punjab Cavalry; Surgeon P. J. Lumsden to the temporary medical charge of the Guides Cavalry, vice Surgeon-Major A. Duncan, proceeded on field service with the Hazara Expedition, 4th Bengal Infantry; Surgeon H. W. G. Macleod to the medical charge of the 19th Punjab Infantry, vice Surgeon-Major J. W. Johnston, retired from the service; Surgeon H. E. Drake-Brockman, on return from field service with the Miranzai Expedition, is reappointed to the officiating medical charge of the regiment, vice Surgeon H. W. G. Macleod; Surgeon P. W. O'Gorman, on return from field service with the Miranzai Expedition, is reappointed to the officiating medical charge of the 20th Punjab Native Infantry, vice Surgeon-Major W. E. B. Moynan, on sick leave; Surgeon H. F. Whitechurch to the officiating medical charge of the 24th Punjab Infantry, vice Surgeon-Major H. J. Linton, on furlough; Surgeon C. E. L. Gilbert to the medical charge of the 30th Punjab Infantry, vice Surgeon-Major F. C. Chatterji, transferred permanently to civil employment; Surgeon D. T. Lane, on return from field service with the Miranzai Expedition, is reappointed to the officiating medical charge of the regiment, vice Surgeon C. E. L. Gilbert; Surgeon F. J. Drury, officiating civil surgeon of Balasore, is appointed to be resident surgeon, Eden Hospital, vice Surgeon G. J. H. Bell; Surgeon-Major G. Price, Civil Surgeon of Burdwan, is appointed to act as Civil Surgeon of Dacca during the absence, on leave, of Surgeon-Major F. C. Nicholson; Surgeon R. R. H. Whitwell, Officiating Civil Surgeon of Tipperah, is appointed to act as Civil Surgeon of Burdwan, during the absence, on deputation, of Surgeon-Major G. Price; Surgeon L. J. Pisani, Bengal Establishment, is appointed Medical Officer of the Chaman Extension, North-Western Railway, vice Surgeon D. M. Davidson, whose services have been replaced at the disposal of the Home Department; Surgeon-Major C. W. Calthrop, M.D., Indian Medical Service, Bengal Establishment, to officiate as Medical Storekeeper at the Presidency, vice Surgeon-Major J. Reid, on leave.

His Excellency the Governor of Bombay is pleased to make the following appointments in the Grant Medical College during the absence of Brigade Surgeon W. Gray:—Brigade Surgeon G. A. Maconochie, M.D., C.M., to be Principal; Surgeon-Major W. K. Hatch, M.B., C.M., F.R.C.S., to be Professor of Surgery, Clinical and Operative Surgery, vice Brigade Surgeon Gray; Surgeon W. H. Quicke to be Professor of Anatomy and Curator of Museum, vice Surgeon-Major Hatch; Surgeon-Major H. T. Brown, M.D., Medical Staff, to the officiating administrative medical charge of the Peshawar District, vice Brigade Surgeon R. Harvey, M.D., Indian Medical Service, appointed Principal Medical Officer, Miranzai Field Force.

NAVAL MEDICAL SERVICE.—The Greenwich Hospital pension of £50 a year for Fleet or Staff Surgeons, rendered vacant by the death of Deputy Inspector-General Charles H. Fuller, has been awarded to Deputy Inspector-General John T. Caddy, M.D. The following appointments have been made at the Admiralty:—Fleet Surgeon: James H. Martin, D.S.O., to Royal Marine Artillery, Eastney (dated August 14th, 1891). Surgeons: Arthur H. Howell to the *Northampton* (dated July 8th, 1891); Ernest E. P. Tindall and Basil R. Clarke to the *Pembroke*, Norman L. Richards and Ernest A. Penfold to the *Vivid*, and Ernest E. Bray to the *Invincible* (all dated July 8th, 1891); George F. Wales to the *Vivid*, and George T. Collingwood to the *Pembroke* (both dated July 5th, 1891).

VOLUNTEER MEDICAL STAFF CORPS.—The Glasgow Division: The undermentioned gentlemen to be Acting Surgeons:—Joseph McGregor Robertson, M.B., Charles Oliver Hawthorne, M.B., William Francis Somerville, M.D., and Andrew Moyes, M.B. (all dated July 4th, 1891).

VOLUNTEER CORPS.—1st Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment): Surgeon E. Gailey is granted the rank of Surgeon-Major, ranking as Major (dated July 4th, 1891).—4th Volunteer Battalion, the Gordon Highlanders: John Osbert Wilson, M.D., to be Acting Surgeon (dated July 4th, 1891).—2nd Volunteer Battalion, the Prince of Wales's Volunteers (South Lancashire Regiment): Andrew Gray, M.B., to be Acting Surgeon (dated July 4th, 1891).

Correspondence.

"Audi alteram partem."

BONE ABSCESS.

To the Editors of THE LANCET.

SIRS,—The suggestion made by Mr. Arthur Neve, of the Kashmir Mission Hospital, with regard to the possible point of origin of the small abscess in the shaft of the tibia of Case 3 of my short series of cases of bone abscess, published on June 20th in your columns, p. 1367, is interesting, and the theory suggested had not occurred to me in connexion with the case. While agreeing with him in assigning the greatest importance to the epiphysial line as the part of a long bone in or near which we are most likely to meet with inflammatory disease, especially in the period from five to twenty years of age, I cannot think that in this patient the mischief commenced there. The focus of the disease was certainly in the upper third, but situated at so great a distance from the epiphysial line that I do not think the bone could have increased in length to such an extent as this theory would cause one to believe. The patient's statement as to the place where he first noticed swelling and felt pain must be taken as insufficiently accurate to possess importance in a consideration of the subject. I have read the paper to which Mr. A. Neve refers on the Relation of the Epiphysis to Osteo-myelitis, as well as other papers by him, during the past few years with great interest, and think them valuable additions to our literature on bone disease.

I am, Sirs, yours obediently,

Harley-street, W., July 8th, 1891. WILLIAM H. BATTLE.

A NEW THEORY OF CHLOROFORM SYNCOPE.

To the Editors of THE LANCET.

SIRS,—Your annotation on the above subject requires some notice, if only a few remarks chiefly by way of correction, for considerations of space prevent me from entering into the merits of the question. The writer is under a misapprehension in saying that the paper read last year before the Medico-Chirurgical Society of Glasgow was afterwards expanded into book form, the fact being that the book was published several months before the reading of the paper. This may not be without significance, for if anyone will compare the contribution of the Glasgow Committee to the discussion which took place before this Society with the article which they had previously published as a reply to the Hyderabad Commission, he will find that their views had in the interim undergone considerable modification, their final position denoting a still wider departure from that of the Commission, and closely approximating to mine. Again, your annotator does not seem sufficiently discriminating when he represents me as conceding that there is no satisfactory experimental proof of certain statements, for he draws no line of demarcation between what is conceded and what is held to be proved. I maintain that it is proved to a demonstration that when chloroform inhalation is stopped at a certain early stage a violent reaction follows, characterised by a rapid pulse of 200 a minute, and frequently terminating in syncope; and that no such reaction ensues when the anæsthesia is made sufficiently deep in the first instance. I grant that a cat does not die of this form of syncope, and that so far the proof of identity with the human subject fails. But it is probable that this gap may be bridged over by experiments on other animals, and meanwhile I hold Experiment 40 of the Hyderabad Commission to be an illustration of the same form of syncope, while the statements of various other experimenters countenance the belief that dogs may die of heart failure caused in this way, as all the evidence appears to show that human beings do. Your annotator errs, perhaps inadvertently, when he states that I would direct the chloroformist to accept pallor as an indication for "more chloroform." I certainly direct the administrator to go boldly on with the chloroform at all hazards until the patient is completely "over," and in spite of such symptoms as coughing, struggling, or even a pause in the respiration of a whole minute's duration. But I expressly except pallor from this category of symptoms; it is recognised as diagnostic of syncope, and it is of the very essence of my view that it cannot occur if the chloroformist goes on with the inhalation as enjoined. Thus, at page 45, there occurs the following:—"What of alarming pallor of the countenance? This, the slightest form of the primary syncope" (meaning when it is only transient) "will never be seen." By this assertion I abide, and it constitutes a criterion by which the theory must stand or fall. But the writer is correct when he says that I do not regard pallor as an indication that the patient has absorbed an overdose. On the contrary, I regard every degree of early syncope as due to the reaction which ensues if the patient is allowed to breathe air when but a small quantity of the anæsthetic has entered the blood; I maintain that during this reaction the absorbed chloroform is eliminated, and that not a drop remains in the blood when syncope occurs, and when the patient may be dead. According to your annotator the theory advanced purports to be new. Why purports If he does not think it is, let him say so and give his reasons.

I am, Sirs, yours truly,

Partick, Glasgow, June 30th, 1891. ROBERT KIRK, M.D.

THE LATE ELECTION AT THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—Permit me in your next issue to offer my hearty thanks to the 261 Fellows who recorded their votes for me at the College on July 2nd. It may interest some, and it cannot fail to be instructive to a few, to learn that this result has been obtained without my having asked, directly or indirectly, for a single vote. My election under these circumstances, I do not hesitate to say, is more honourable to the Fellows, as it certainly is more esteemed by myself.

I am, Sirs, yours faithfully,

Leeds, July 4th, 1891. T. R. JESSOP.

"ALCOHOL AND LONGEVITY."

To the Editors of THE LANCET.

SIRS,—My attention has just been called to the article headed "Alcohol and Longevity" that appeared in your issue of June 27th last, suggesting that the difference in the death-rate shown in the abstainers and general sections of the United Kingdom Temperance and General Provident Institution is due to the transfer to the latter of the depreciated or moribund lives of the former. I now write to ask you to allow me, as being now and having for many years been the actuary of the institution, to repeat in your columns my frequently given denial, that the differences in question are due, or attributable, to any such cause. Apart from the fact that no transfer is made either way, when the health of the life assured is known or believed to be affected, the total transfers themselves are so few in number in proportion to the total number of lives in either class—and the tendency is to leave the general and enter the abstainers' group—that the results could be deflected to an insignificant extent only, if at all. For instance, in the decennium 1881–1890, there have been 725 transfers from the general to the abstainers' class, and 470 from the latter to the former—from which, remembering that the numbers at risk were reckoned by tens of thousands, it will be seen that, if any deflection could be attributed to the transfers, it must be very small indeed. Besides, if your suggestion were well founded, it would follow that the larger number of transfers to the abstainers' group would have unfavourably affected the working results, which has distinctly not been the case. The profound truth which has been gradually and firmly forced upon me, and upon all others that have had occasion to look closely into the question, is that total abstinence is a most important moral and sanitary measure, and that it yields many real and far-reaching results to society, not the least of which is a larger collective vitality through that dangerous period of life when the physical and mental strain is heaviest, thus ensuring the consequent preservation of an increasing body of matured and skilled workers. In my professional observation and in my personal experience all heavy and responsible work is quicker and better done without alcoholic stimulant. Standing now at the close of half a century's working, I unhesitatingly

claim upon statistical grounds a vindication of the distinctive principles of the institution and of the discernment of the founders; and I maintain that our lengthened experience shows conclusively that abstinence from alcohol, as an article of diet, not only does enable the human powers to be worked to their fullest extent and under all the varying circumstances of climate and of a complex civilisation, but, in addition, it offers and renders the inestimable reward of vigorous health and a deeper capacity for true enjoyment, with the additional blessing of an enhanced vitality.

I am, Sirs, your obedient servant,

RALPH PRICE HARDY.

Norfolk House, Victoria Embankment, W.C., July 7th, 1891.

TREATMENT OF CANCER AND LUPUS.

To the Editors of THE LANCET.

SIRS,—My attention having been directed to a lay newspaper paragraph in which I am represented as being desirous of placing before the profession the details of my mode of treating cancer and lupus, will you permit me to say that at the present moment I am not in a position to make any statement on the matter to my professional brethren.

I am, Sirs, yours obediently,

Sheffield, July 4th, 1891. H. J. HARDWICKE.

PROFESSOR LANNELONGUE'S TREATMENT OF TUBERCULOSIS.

IMPORTANT COMMUNICATION TO THE ACADEMIES OF SCIENCES AND MEDICINE.

(*From our Paris Correspondent.*)

UNDOUBTEDLY, since the reading of Professor Koch's celebrated paper at the last meeting of the International Medical Congress in Berlin, the most important contribution to the study of the treatment of tubercular disease was that made yesterday by Professor Lannelongue to the Academy of Sciences, and this afternoon to the Academy of Medicine. The reading of the paper had been looked forward to for some time, as it was noised abroad that M. Lannelongue was actively engaged in confirming a series of encouraging observations which had led to some very remarkable results. Consequently the lecture hall of the Academy was yesterday filled by a distinguished scientific and appreciative audience, which listened attentively while the author, calmly and clearly, and with admirable scientific reserve, made his sometime anticipated communication. This is in itself so important that I do not scruple about giving a somewhat lengthened and detailed *résumé* of it, and as much as possible in the words of Professor Lannelongue. He began by saying that it was now four months since he made the first trial of his method of combating tubercular mischief in the human subject, and that during this time he had applied it to examples of the various stages of tubercular evolution, from the earliest to the most advanced forms. The results obtained and controlled by the most careful observation appeared to him worthy of being made public without further delay, in order that they might be submitted to the test and judgment of all. And this for two reasons: first, because of the urgent importance of the subject itself; and secondly, because the simplicity of the method, as well as its prompt action, will enable every practitioner to appreciate its value. Moreover, it is not a question of a specific remedy, acting directly on and destroying the bacillus, but of a well-known chemical and antiseptic agent, applied in a method the details of which are to follow—viz., chloride of zinc.

The lesion produced by the bacillus of tubercle being nearly always localised to one place in the organism, it seems reasonable to suppose that the best results would be obtained from remedies applied to the affected area, and that nature's work of repair would be imitated in every respect if one could bring about a transformation into fibrous tissue—a tissue representing cicatrisation, or the natural reparative processes—of the morbid elements which are mostly destined to degenerate, and to become, in the great majority of cases, foci of infection, first for the neighbouring parts, next for those more remote, and finally for the whole economy. In brief, the object aimed at by the method is to bring about a sclerosis of the tubercular tissue wherever may be its seat. In effecting this a condition is brought about which is incompatible with the existence of the bacillus, since this latter is found to disappear, or at least to become powerless for evil, when the condition in question is established. The method itself consists simply in conveying the appropriate therapeutic agent, not into the fungous growths, nor into the actual tubercular foci, but outside and around them only. The anatomical structure and the manner of increase of these foci show the advantage of this precaution; for whilst at the periphery are found in full activity the most recent processes, in the centre there is nothing but degenerated products, which goes to show that the bacillary action always spreads excentrically, and that the normal tissues forming the limit of the morbid centre are as a matrix continually elaborating under bacillary stimulus these tubercular neoplasms, which then propagate and spread, invading all before them. Hence the necessity for modifying as early as possible the peripheral tissues, as well as for attempting to alter the area already invaded, where the bacillus is in full activity; for it must not be forgotten that the latter zone is dependent for its blood-supply—in other words, for its nutrition—on the peripheral zone.

Now, experiments have shown that chloride of zinc produces a remarkable fibroid change in the normal tissues of animals, and, as might be expected, the same fibroid transformation is brought about by the same agent in morbid tissues in general, including the tubercular. This chemical compound may be said to fix the anatomical elements by killing them, for it obliterates the capillaries and smaller vessels around where it has been deposited. An inflammatory action is thus set up in the vascular walls, which narrows the calibre of the surrounding vessels for a considerable distance from the initial point. But over and above this another local change of the highest import is brought about. Very rapidly—even within a few hours—there is produced in the altered tissues, by transmigration, and probably also by cell proliferation, an enormous afflux of new anatomical elements. These young cells cause fresh œdema of the periphery of the granulation growths, and infiltrate the tubercular neoplasm to the fullest extent. From this moment the struggle sets in between the accumulated elements and the bacilli, especially between the migratory cells and the microbes, to the detriment of the latter. However it may be as to the strife between cell and bacillus, the elements of the morbid growth which the chloride of zinc had destroyed are reabsorbed slowly, and finally disappear. The young cells, on the contrary, organise with great activity, and form a firm fibrous tissue, which is met with in appreciable quantity as early as the day next after the injection.

Following the sclerosis in articular fungosities, there is produced a thickening and subsequent condensation of osseous tissue if the periosteum be involved in the reparative process, as was the case in the examples of osteo-arthritic disease cited by the author. The remote results, so far as it is yet possible to judge, show a marked tendency for the sclerosed elements to be replaced by a more pliable connective tissue. As a consequence, the diseased parts regain their suppleness and their form, while locomotor functions are preserved entirely, or at least to the limits present at the beginning of the treatment. So far twenty-two patients had submitted to the treatment, including two cases of pulmonary tuberculosis. As to these latter, however, nothing could yet be said, for the injections were begun on June 23rd only. The other twenty were all cases of surgical tuberculosis, which M. Lannelongue classifies into—first, *non-suppurating and not open*, eleven cases, including six cases of tubercular knee-joint disease. Of these six cases, two have been up and about for a month past. They walk with all the functions and even the form of the joint well preserved. Another treated more recently is getting up. Of the remaining three, one is about to walk, the other two being under treatment since June 13th only, but they are progressing satisfactorily. An elbow-joint case and an ankle-joint case are both cured, the former preserving all the natural movements. His second group, *suppurating and not open*, consists of seven cases, including four joint cases, two of the knee, which are almost cured, and two of the ankle, doing well. The third group, *suppurating and open*, consists of two cases of advanced and suppurating osteo-arthritis of

the ankle-joint, in one of which it was a question of amputation, but both are now doing well. Such, continued M. Lannelongue, being the results accruing from a somewhat limited operation, the question of permanent cure presents itself. Taking the cases of knee-joint disease for example, may not they be considered cured who have regained the complete functions and even the form of their joints, who feel nothing abnormal, who walk all day, are gaining in strength and weight, and who, in short, for more than a month past have led their ordinary lives? But notwithstanding all these facts and appearances, one cannot be too cautious in coming to a conclusion.

Permanent cure involves the undoubted disappearance of the bacillus; but this disappearance M. Lannelongue was not absolutely able to affirm. It is true that in a tuberculous specimen which was taken from one of the patients after the sclerotic change had been induced, no trace of a bacillus could be detected, and that a guinea-pig which was inoculated with a preparation from this same specimen two months ago is still alive and well. There was still in some of his cases the question of wrong diagnosis, and he was willing rather to accept the responsibility of an inexact diagnosis than to advance too fast. But however this might be, there was every reason to believe that the transformation of tubercular tissue into fibrous tissue was little compatible with the life of a bacillus, and there could be no manner of doubt that amongst some of his patients the bacillus of tubercle showed for nearly three months no evidence of its presence. The constitution of the new tissue would in any case lessen the chances of general infection, for it has for a long while been recognised that tubercular foci which are softened and full of liquid are much more dangerous, not only to the neighbouring parts, but to the entire economy. If, then, the bacillus persists in the sclerosed tissues, a point which M. Lannelongue was trying to resolve experimentally while waiting the proofs to be drawn from the examination of further microscopic preparations, it would appear to be confined in an encapsuled and therefore harmless condition, all traces of its activity having disappeared for a time, the length of which was increasing day by day. The near future would, however, alone definitely settle this point. At the conclusion of this very eloquent address much enthusiasm was displayed, and M. Lannelongue was warmly congratulated. I reserve for a subsequent communication some further remarks and details as to the technique of the method.

Paris, July 6th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Collapse of the Serious Charge against a Hetton Surgeon; the Order quashed, with Costs.

THE serious charge against Dr. T. A. Robson, late in practice at Hetton, co. Durham, and by which, by a magistrate's order, he was made to pay 5*s.* per week to the illegitimate child of the appellant Richardson, came up before the Durham Quarter Sessions last week, with the result that the case against the practitioner has completely broken down, and after a two days' hearing the magistrate's order has been quashed, with costs. This is all very well, but what can compensate a medical man for his loss of practice, health, and protracted anxiety arising out of such a charge? Medical men are easy victims to such charges, but to a medical mind the nature of such charges will be always open to suspicion, more especially when coupled with the charge of insensibilty being immediately produced by smelling "something out of a bottle." But on such a charge as this, and with such a foundation, a medical man's character may be blasted.

Durham Friendly Societies.

The annual church parade of the friendly societies of Durham took place last Sunday, and was favoured with fine weather. The Bishop of Durham preached, and the collection was made on behalf of the Grange Friendly Societies' Convalescent Home. At Hartlepool also the friendly societies had a demonstration, and a mass meeting was held, at which Mr. C. Furness, M.P., presided, and he spoke very forcibly on behalf of the local charities. A good collection was taken *en route*.

Presentation to a York Police Surgeon.

The members of the York Police Force on Friday last gave practical proof of their appreciation of the services rendered to the force by their medical officer, Mr. J. I. F. Marshall. The presentation was made in the presence of the majority of the men by the Chief Constable, who in the course of a few well-chosen remarks referred to the fact that Mr. Marshall had been their medical officer for thirty-five years, or four years longer than the service of any man in the force. He also alluded to the valuable ambulance instruction given by Mr. Marshall.

Proposed New Eye Infirmary for Sunderland.

The committee of the Sunderland and North Durham Eye Infirmary some time ago invited architects to submit designs for the new building about to be erected on the Stockton-road. Nineteen plans were sent in, and the committee selected as first, with a premium of £20, that sent in by Mr. J. W. Donald of South Shields.

The Koch Treatment at the Royal Infirmary, Newcastle.

The following is stated to be the result of the cases at the Newcastle Infirmary treated by Koch's method:—"The cases of lupus have improved, but in no instance has the condition been eradicated. In the cases of incipient tubercular phthisis the disease was influenced beneficially for a time, but subsequently retrogressed. The joint and glandular cases were not favourably influenced. The application of the lymph was first made at the infirmary on Dec. 9th, 1890."

King Dunmail's Cairn.

Visitors to the Lake district will be familiar with the cairn on Dunmail Raise on the coach road from Keswick to Ambleside. It is called King Dunmail's Cairn. The Cumberland and Northumberland Antiquarian Society are desirous of examining it, and of ascertaining what evidence there is of the site having ever been a burial place. They recently approached the Manchester Waterworks' Committee with a request for the necessary permission. The corporation are the owners of a large extent of country in the Thirlmere watershed, and it was thought the ownership of the cairn was vested in them. It appears, however, that the corporation are not the sole owners of the site on which the cairn stands, and therefore, whilst they do not themselves object to the proposed examination, the Waterworks' Committee have been unable to give the necessary permission for its disturbance.

Newcastle-on-Tyne, July 8th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

A Society of Medical Officers of Health for Scotland.

AT a meeting in the rooms of the Royal College of Surgeons, Edinburgh, on June 19th, a Society of Medical Officers of Health for Scotland was formally constituted. Dr. Littlejohn (Edinburgh) was elected President of the Society. Members of Council: Drs. Christie (Hillhead), McLintock (Lanarkshire), Russell (Glasgow), McVail (Stirlingshire). Hon. Treasurer: Dr. Nasmyth (Fifeshire). Hon. Secretary: Dr. Campbell Munro (Renfrewshire). After the transaction of the formal business the following questions were discussed: 1. A uniform system of vital statistics; a uniform size of page for printed reports. 2. The relation of county medical officers of health to police burghs. 3. Ought notification by the householder be insisted upon under the Act of 1889? 4. The position of district committees with reference to the scavenging of villages.

Forfarshire Medical Association.

The annual meeting of this Association was held in Montrose on the 2nd inst., when there was a large attendance of medical gentlemen from all parts of the county. Previously to the meeting the members paid a visit to the new hospital at Sunnyside Asylum, which has cost about £18,000, and which is about to be formally opened. General approval was expressed of the arrangements made for the benefit of the inmates and the elegance of the building generally. At the meeting, which was presided over by Dr. Stone, Montrose, the president opened a discussion upon some difficulties connected with the administration of the Com-

pulsory Notification of Infectious Diseases Act. A very interesting conversation ensued, and the Association indicated its intention of endeavouring to procure several alterations in the Act which would render its working more satisfactory. After the meeting the members dined together in the Star Hotel, Dr. Stone presiding.

Proposed Public Dinner to Dr. Murdoch Brown.

In view of Dr. Murdoch Brown's retirement at the close of the present summer session from the post of clinical medical tutor in the University of Edinburgh—an appointment which he has held for the past sixteen years, and the duties of which he has discharged with signal success—it has been thought that it will be a pleasure to many of his old pupils to avail themselves of this opportunity of presenting him with some substantial expression of their regard and of their indebtedness to him for his valuable instruction. It has therefore been suggested that a suitable presentation be made to him at a public dinner, to be held at the commencement of next winter session, the date of which will be duly intimated. All subscriptions towards this object will be reported to the committee, and acknowledged in due course by Mr. C. E. W. Macpherson, C.A., 28, St. Andrew-square, Edinburgh, who has consented to act as treasurer.

Health of Edinburgh.

The mortality last week was 95, and the death-rate 18 per 1000. Diseases of the chest caused 40 deaths, and zymotic diseases 6. The intimations for the week comprised—typhoid fever, 3; diphtheria, 4; scarlatina, 4; and measles, 84. In Leith during the week the number of deaths was 34, making the death-rate 25 per 1000.

The final examination at the Edinburgh University has just finished. There were about 320 candidates, and of these about 190 have passed.

July 7th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Death of Mr. Nicholas C. Whyte, M.R.C.S., Coroner for the City of Dublin.

ON Thursday, the 2nd inst., in London, where he had gone for a short holiday, Mr. Whyte died from a fit of apoplexy after two days' illness. He had not been in very good health of late years, and about a twelvemonth since suffered from a dangerous illness. He was appointed by the Corporation sole coroner for Dublin in 1876, at a salary of £600 a year. His death will be sincerely regretted as that of an upright and honest gentleman, of kindly disposition, and of one who discharged the duties of his office in an efficient manner. There will probably be many candidates for the vacancy; but, constituted as the Town Council is at present, the election will be decided on politico-religious qualifications. It is to be hoped that the person elected will devote his entire attention to the duties of the coronership, and not be permitted to retain other appointments. The election will take place next Monday, as, in accordance with the Act of Parliament, the vacancy must be filled within ten days of the late coroner's decease. Mr. Harty, county coroner, will in the meantime act as coroner for the city, pending the election of Mr. Whyte's successor. At a meeting of the Corporation on Monday a resolution was adopted expressing regret at the death of Mr. Whyte, and tendering the sympathy of the Town Council to his wife and daughter in their affliction.

Death from Chloroform.

A death from chloroform—a most unusual occurrence in Dublin—took place in the Meath Hospital on July 2nd, while an operation was being performed for cancer of the tongue. The patient, an army pensioner, aged forty-one years, had been admitted into hospital suffering from the disease above named, and on June 29th had been put under the influence of ether; but, this anæsthetic not proving suitable, chloroform was used on the next occasion, July 2nd. Every endeavour was used to restore consciousness, but without success, and death occurred from failure of the heart's action.

Adelaide Hospital, Dublin.

At the termination of the session 1890-91 the scholarships and prizes obtained by the successful students were distributed. The Hudson Scholarship, instituted in memory of the late Dr. Alfred Hudson, the eminent physician, which consists of a gold medal and £30, was awarded to Miss K. Maguire, and the Hudson Prize of £10 and silver medal to Mr. George Peacocke. Mr. T. Meyler and B. D'Olier obtained the Medical Class Prize; Mr. H. Howell the Surgical Class Prize; Messrs. F. W. Pigott and Vernon Cooke the Dermatology Prize; and Mr. B. D'Olier the Dressing Prize. On the same occasion, Mr. T. E. Gordon, house surgeon, was presented with an address, accompanied by a marble clock and ornaments, from the staff and students on his retirement from office. Before the prizes were distributed, Dr. J. Kellock Barton, F.R.C.S., senior surgeon, who presided, gave an interesting address to the students present.

Zymotic Diseases in Dublin during May.

The deaths from the seven principal zymotic diseases in the entire registration district were in the ratio of 0·62 per 1000 persons. There were no deaths from small-pox, measles, scarlatina, typhus or simple continued fever. In the city the rate was 0·65, which contrasts very favourably for the month of May with previous years. For example, it was 1·75 in 1890, 1·62 in 1889, 2·9 in 1888, and 3·7 in 1887.

Society of Chemical Industry: Dublin Meeting.

The annual gathering of this Society will take place this week in Dublin. The annual meeting will be held in the Examination Hall, Trinity College, on Wednesday; luncheon will be served at 1 P.M., and afterwards there will be an excursion to Bray or by steamer to Dublin Bay; while in the evening a conversazione has been contemplated. Visits will be paid during the week to various breweries and distilleries, and to the railway works at Inchicore &c. The annual dinner of the members has been fixed for Thursday evening.

Dublin Main Drainage.

The Main Drainage Committee have been granted permission by the Corporation to expend a sum of £250 in preliminary expenses, and to obtain the opinion of eminent consulting surgeons.

Catholic University Medical School.

A sum of £4000 will shortly be expended on structural alterations and improvements in the buildings of this medical school, and as of late the institution has been greatly improved, and possesses an admirable staff, it will prove a formidable competitor to other medical schools in Dublin.

The Regius Professorship of Surgery, Dublin University.

The election of a Regius Professor of Surgery in the University of Dublin has been adjourned to October, when it is to be hoped the Academic Council will solve the difficulty of appointing a successor to Mr. Colles. The candidates who obtained the highest number of votes on the last occasion were Dr. Ball, Sir William Stokes, and Sir George Porter, Bart., so that it does not require a prophet to state that one of the three will be selected.

July 7th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Appointments and Resignations.

DR. FELIX SKUTSCH, private lecturer on gynæcology, has been appointed to an Extraordinary Professorship in the Medical Faculty of the University of Jena.—Professor Angerer has been released, at his own request, from his office in the surgical department of Dr. von Hanner's Children's Hospital in Munich, and the said office has been bestowed on the private lecturer, Dr. Wilhelm Herzog, with the obligation to use the department for teaching purposes.—The private lecturer, Dr. Ferdinand Klaussner, has been appointed to succeed Professor Angerer as Extraordinary Professor of Surgery and head of the Surgical Consulting Hospital in the University of Munich. He was for a length of time assistant in the Anatomical Institute in Munich, but afterwards devoted himself entirely to surgery.—The private lecturer, Dr. Otto von Heusinger, has been appointed to a Professorship in the Medical Faculty of the University of Marburg. He is a son of Karl Friedrich von Heusinger, who stood at

the head of the Marburg Medical Clinic from 1829 till 1867.—Dr. Victor Hüter, who has been appointed to a Medical Professorship at Marburg simultaneously with Professor von Heusinger, has been a medical lecturer since 1858.—Dr. Theodore Kölliker, who has been appointed Professor in Leipsic, after finishing his studies, was for several years assistant in the Anatomical Institute at Würzburg, of which his father is the head.

Undressed Hides.

Instructions how to guard against the dangers connected with the currying and working up of foreign hides have been drawn up in the Imperial Office of Health in Berlin, and will be communicated to those whose occupations specially expose them to the said dangers.

The Society of Prussian Medical Officials.

The ninth general meeting of the Society of Prussian Medical Officials will be held at Berlin on Sept. 28th and 29th, in the large lecture-hall of the Hygienic Institute.

Dr. Castex.

Dr. Castex, prosector of the Medical Faculty in Paris, has been commissioned by the French Government to visit and study the establishments for affording instruction upon diseases of the nose, the ears, and the windpipe in connexion with the German universities.

Tuberculin.

Professor Oskar Hertwig, director of the second Anatomical Institute in Berlin, is about to publish an essay on the Physiological Basis of the Effects of Tuberculin.

Medical Statistics.

In the week which ended on June 13th, 444 boys and 444 girls were born alive in Berlin; of these, 102 were illegitimate. Nineteen boys and 12 girls were born dead, of whom 10 were illegitimate. The number of reported deaths was 534. One person died of measles, 1 of scarlet fever, 1 of typhus fever, 1 of syphilis, 2 of articular rheumatism, 5 of puerperal fever, 9 of cerebral apoplexy, 10 of whooping-cough, 13 of gastro-intestinal catarrh, 14 of diphtheria, 18 of senile decrepitude, 20 of diarrhœa, 32 of diarrhœa with vomiting, 34 of pneumonia, and 89 of pulmonary phthisis. Sixteen died by violence, including 9 suicides.

Berlin, July 5th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

The "Fatal Patient."

THE story of this patient published in the daily papers seems on inquiry to have some remarkable elements of truth. It is true that a woman visited the Manhattan Eye and Ear Infirmary for treatment about two years ago, that she was suffering from a nasal catarrh, that she was assigned to Dr. Johnson for treatment, and that Dr. Johnson died suddenly two days later. Six months after the woman again visited the infirmary for treatment of the same disease, and was placed in charge of Dr. Pond, who also died suddenly two days after. These singular incidents excited much comment among the staff of physicians, who would jokingly tell any new member of their body who happened to be assigned to the particular department of which Drs. Johnson and Pond had been in charge that he had better beware of this "fatal patient," that designation having been written for amusement against her name. About a month ago the woman appeared again, complaining greatly of her catarrh, but she remarked that she feared the doctors might have some hesitation in attending her case, as her previous visits had been followed by the deaths of the physicians who had taken charge of her case. Her surmise was wrong, for she was promptly attended to by Dr. Phillips, who was in charge, and who had been made acquainted with the grim joke about the "fatal patient," the woman being fully identified to him as the traditional patient. Dr. Phillips was found dead in his bed next morning, having died several hours previously, apparently from heart failure. He was a very promising young physician, and believed to be in perfect health. The staff of physicians speak of these occurrences as extraordinary, but ridicule the suggestion that any member is so superstitious as to refuse to treat the woman if she returns.

The Columbian Exhibition and the Profession.

There is a growing interest among medical men in the great Exposition which will open next year at Chicago. One method of utilising the occasion in the interest of medicine is the organisation of a Medical Congress, to be composed of representatives from all the American republics. This action already has the approval of the American Medical Association. Another scheme is to exhibit the present state of sanitary science in this country by an exhibition of all kinds of appliances now in use. A third proposition is to exhibit, as an object lesson, the recent advances in surgery, present apparatus and methods being contrasted with the past.

The Jenner Centenary.

The Committee of the American Medical Association on the Centenary of the Introduction of Vaccination has reported, recommending that May 14th, 1896, be set apart for the proper commemmoration of the life and work of Jenner. The special feature of the anniversary is to be a eulogy on Jenner, and the preparation of a work embodying the results of vaccination in this country. The American Public Health Association has also appointed a committee to coöperate with the Medical Association in the scheme of celebrating this centenary.

New York, June 23rd.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

The Drainage of Cairo.

EIGHTEEN months ago the Egyptian Government received from a well-known English expert a scheme for draining the whole of the capital of Egypt, and now, after much regrettable delay, one more step has been gained, for the Government has asked permission of the six European Powers to spend half the *octroi* revenue of Cairo, some £70,000 per annum, upon this most necessary reform. It seems absurd, while Egypt is being congratulated on all sides upon her improved finances, and is yearly adding to her reserved funds and converting her debts at a more profitable rate of interest, that she should be unable to expend her own profits upon sanitary or other reforms. For eight years it has been preached to high English officials that epidemics will of a certainty visit Egypt unless something be done to purify Cairo and the other large towns. Individual officials all recognise this, but it has been urged in answer that Egypt has no money, that the native officials are unwilling, and that France, and perhaps Russia, will stand in the way of all progress proposed by England. To-day Egypt is rich enough to be able to think of her own health, and there is money if only it can be made use of. At least half a million is necessary for Cairo alone, and this can easily be covered by the proposed *octroi* revenue. Next, it is quite true that many of the native pashas are averse to all sanitation, and that most of them do not understand that fouled drinking water is injurious to health. They and their fathers have always drunk from the unfiltered Nile, and they fail to understand what the English find to object to in drains emptying into the water-supply. But we are now fortunate enough to have at the head of the Government Mustapha Pasha Fehmy, who is desirous of doing all that is possible for the good and the health of the country, and has had the advantage of tuition on the subject from his son-in-law, the present vice-director of the Sanitary Department, who for his services has just been raised by the Khedive to the rank of Pasha. We now come to the third objection, which it is to be feared still exists. It is already whispered that France will refuse her consent to Egypt's proposal, though it is difficult to understand upon what grounds. She may, of course, insist upon a Commission of international engineers and financiers to consider the scheme. For the moment we must at least be thankful that the question is a little farther advanced than it has ever been before. English influence in this country has been most usefully expended upon financial, military, and irrigation progress, and is now grappling with the subjects of justice and police. It is fully time that the public health should have its turn. All who have studied health returns from Cairo know that the high rate of annual mortality is chiefly due to a tremendous increase of infant deaths

among the native population during the four summer months. This is without doubt partly due to summer heat and partly also due to the low Nile, when drinking water, both from the river and from private wells, is much less pure than before and after low Nile. This year an extensive epidemic of measles, chiefly among the native children, has raised the death-rate to a terribly high figure. The normal Cairo death-rate rises gradually from 46 per 1000 in May to 51 at this time of year. But this year it has risen from 70 to 87 per mille per annum, and out of 3403 deaths which have occurred in Cairo during the last six weeks, no less than 2410 have been in children under five years of age. Out of this number (2410) only 285 have been returned as measles, because the natives would not dream of returning deaths under that heading, unless the child actually died in the eruptive stage; but there were 550 deaths from respiratory diseases, nearly all broncho-pneumonia, and as many as 955 from diarrhœa, which is a very common sequela of measles here.

Infectious Diseases.

Measles is reported also from Fayoum in Middle Egypt, but as yet only 37 cases, with 4 deaths. Small-pox has been reported from three villages, but has only occasioned five deaths during six weeks. Five provinces, with a total number of nine villages, have still a few cases of typhus and relapsing fevers, from which there have been forty deaths in six weeks. Influenza appeared in a very odd way about two months ago in Upper Egypt, and has since then furnished many temporary victims among the soldiers and civil population between Wady Halfa and Assiout. One body of men 150 strong marched into Korosko in perfect health, and set out again the next day, leaving fifteen men behind in hospital. There have during the last month been a few rare cases of influenza in Cairo, with indefinite symptoms chiefly of the nervous prostration type. The disease has not yet spread to Alexandria, and its existence is hardly recognised even in Cairo.

Scarlet Fever in Cairo.

This fever is practically unknown among the natives, and it has been for some years an interesting question as to how soon the English would introduce it. A few sporadic cases occur almost every year at Alexandria, where there are very many Europeans, and daily intercourse with Europe. In Cairo three cases have occurred in May, and it is believed that these are the first seen since the English occupation. The cases were all mild, the sufferers being of English nationality.

Griesinger's Bilious Typhoid Fever.

By those who carefully look for it, relapsing fever with its attendant, spirochæte Obermeieri, may be seen every spring in the villages near Cairo, but it is still a question whether Griesinger's special form of the disease is ever there. At Alexandria, on the other hand, true typhus fever is well known, and the ordinary relapsing fever seldom seen; but it is maintained that *febre bilieuse* is sometimes present, and that this spring there has been quite an epidemic of it. It is certain that in the native quarters of the town there have been several hundred cases of fever, including some of typhus, not always diagnosed, and very many patients without eruption, who have been thought by some of the European doctors to be suffering from "malaria." Excluding all known sources of error, there remain the facts that some fifty cases resembling relapsing fever have been treated in the native hospital, and that competent observers, such as Drs. Schiess and Kartulis, and a German colleague have invariably failed to find the pathognomonic spirochæte, or the malaria parasite. The patients, speaking generally, have fever for six days, none for ten, then a relapse for six days, and occasionally, after ten or twelve more days, a second relapse; and the crisis is invariably accompanied by the rapid and typical descent of temperature known in relapsing fever. Dr. Kartulis himself caught the disease in April, had seven days' fever, then a rapid drop from 104° to 96·8°, with profuse sweating, the ten days without fever, 97° to 98°, then three days' fever as high again as 105°, a similar crisis, then twelve days without fever, then a second relapse of three days, ended by a critical sweat and dropping of the thermometer from 104° to 97° once more. There is nothing in this history unlike relapsing fever, except that the spirilla could never be found. The crisis was not attended by a ravenous appetite, as in some epidemics, and the tongue remained coated for a longer period than is usual, while every patient complained of great epigastric pain and tenderness, and about one-third of them were affected by jaundice and vomiting. During convalescence there were much debility, muscular pains, cramps, and sometimes temporary anæsthetic patches of skin. Patients varied in age from four to sixty years, and evidence of contagion was furnished by eight hospital attendants who caught the fever, in addition to two others—the hospital cook and the post-mortem porter—who died of it.

Tuberculin Injections.

Koch's fluid has been tried on eight lepers, and although it evidently has some influence, it is too early yet to give any opinion as regards improvement. Injections are now being given at the Alexandria Hospital twice a week, 1 milligramme at a time, but doses as large as 200 milligrammes every two days have been given without bad result. One boy aged ten, with well-marked tubercules on his face, arms, legs, and feet, is the youngest case I have seen in Egypt. He is said to be the son of a leprous mother now dead. Dr. Schiess is injecting twice a week, with doses varying from one-fifth to one milligramme, some twenty-five patients with tubercular disease of bones, lungs, or cervical glands, and proposes to continue these small doses if necessary for a year. He maintains that he has seen no deaths, no patients made worse by the Koch treatment, and many considerably improved by it.

Cairo, June 22nd.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Murders in Victoria.

FOR the last few months there has been quite an epidemic of murder in Victoria. Every Monday morning of late has seen an unfortunate on the scaffold, so that the Government, of which Mr. James Munro is the chief, has earned the unenviable title of the "Hanging Ministry." One of the criminals lately executed was a Hindoo, who, after being sentenced, refused to take food, hoping thereby to cheat the gallows. It was said that the executive held a meeting to consider the advisability of hanging the wretched man right off, but better counsels evidently prevailed, and the prison surgeon kept the prisoner alive by artificial feeding until he was led out for execution. But the hanging boom reached its climax last week, when the Ballarat murderer was put to death. The case presents some features of interest for students of mental and forensic science. Last December a man—Johnston by name—poisoned his four children with prussic acid, shot his wife, and then attempted to destroy himself with arsenic. After recovering from the effects of the arsenic he was found to be deaf, dumb, and paralysed, and his trial was postponed from time to time to allow him to recover sufficiently to be able to plead. Eventually, while deaf, dumb, and paraplegic, he was placed on his trial, when he offered no defence, and being found guilty was sentenced to death. He maintained that he remembered nothing of the tragedy. It was also proved that he had been a loving father and a kind husband, but that he was financially involved, and it was suggested that he committed the tragedy to escape financial disgrace. There was no plea of insanity put forth at the trial, and the medical advisers of the Government certified that the prisoner was quite sane. The paralysed condition of the man excited pity, and the public felt that, although sane at the time of the trial, the man must have been mad when he committed the fearful deed. Petitions for mercy were got up, but the executive was firm, and decided that the sentence should be carried out. On the night before the execution two local doctors gained admittance to the gaol in an informal manner, and certified that Johnston was insane. This certification was wired to the Governor early on the following morning, and Lord Hopetoun at once granted a respite, which arrived at the gaol only a few minutes before the time fixed for the execution. The executive, while concurring in the governor's action, were determined to carry out the law, and they at once appointed a medical commission to examine the condemned man. After a full and careful examination, the commission reported the prisoner to be quite sane. Dr. Youll, indeed, was of opinion that the

paraplegia and the other nervous symptoms were not real, but that the case was one of malingering. Acting on the report of the commission, the executive gave orders for the prisoner's execution, which was carried out last Monday after a week's respite. He was carried to the scaffold on a chair specially made for the purpose, and died protesting that he remembered nothing of the crime. So ended a very gruesome tragedy.

Vaccination in Melbourne.

Quite a novel method of estimating the number of unvaccinated infants was recently adopted in Melbourne. A baby show was being held, at which there were some hundreds of exhibits, when the two State medical experts appeared on the scene, and made a most searching examination of the infants' arms. They found that one-half of those examined had no marks whatever, and the marks on the remainder were very unsatisfactory. If the exhibited babies are a fair sample of the Victorian infants, it would appear that vaccination, although compulsory, is not carried out in a proper manner.

Prince Alfred Hospital, Sydney.

The exclusion of Irishmen or medical men holding Irish qualifications from the honorary staff of the Prince Alfred Hospital, Sydney, has been a matter of frequent comment of late. This hospital was founded to commemorate the failure of the attempted assassination twenty-three years ago of the Duke of Edinburgh. The would-be assassin was an imbecile Irishman, and a great deal of political and religious capital was made out of the affair. The Irish medical men are naturally very indignant at their exclusion from the Prince Alfred Hospital, more especially as at St. Vincent's Hospital, which is a purely Catholic institution, the staff is appointed quite irrespective of nationality or creed. The following table shows the number of medical gentlemen holding respectively an Irish, English, or Scottish qualification on the working and consulting honorary staffs of the various hospitals:

	Prince Alfred Hospital.	St. Vincent's Hospital.	Sydney Hospital.
Irish	0	4	8
English	8	3	4
Scottish	9	2	11

Though, as a matter of fact, one of the surgeons in the Prince Alfred Hospital holds the Fellowship of the Royal College of Surgeons, Ireland, it is suppressed on the list in the report, while his Scottish medical qualification only is recorded. Seeing that the Prince Alfred Hospital is to a great extent the teaching school of the Sydney University, and is thereby destined to have a wide influence on medical education in this colony, it seems to be a petty and narrow-minded policy to exclude the graduates of the ancient and honourable Irish corporations.

Another Death under Chloroform.

There was another death under chloroform last week in the Melbourne Hospital, making the fifth during the last twelve months. The coroner again waxed very wroth with the authorities for not appointing an expert anæsthetist to teach and superintend anæsthetics, and the jury added a rider to their verdict, pointing out the necessity of such an addition to the staff. There is a feud between the coroner and the hospital staff on this subject, which, the *Melbourne Age* points out, would be ridiculous if it were not likely to be followed by tragical consequences. And the same journal closes an article on the subject in this wise:—"If there were an expert chloroformist connected with the hospital, he would take care to ascertain that members of the staff, likely to be resorted to when there was not time for his services to be secured, should have a thorough knowledge of their duty. At present there is no expert, and no instructor, and the young men who are called upon to administer chloroform have to depend largely on information picked up at their university lectures. This is not a state of affairs calculated to inspire confidence, either in the public who support the hospital or the patients who claim its assistance."

Your readers will hear with regret of a very serious accident which happened to the venerable Chancellor of the Melbourne University, Dr. Brownless. While attending a charitable entertainment he fell and sustained a fracture and dislocation of the right femur. My latest advice is that he is progressing as favourably as could be expected.

May 24th

Obituary.

CHARLES EDWARD SHEPPARD, M.D. LOND., F.R.C.S. ENG.

THE sudden death of Dr. Sheppard, which took place last week, is a loss not only to medical science, but to an unusually large circle of private friends. Few men are gifted with such accomplishments as he possessed, and when those accomplishments are centred in one who was above everything a trusted friend and a true-hearted gentleman, his death becomes little less than a public calamity. Dr. Sheppard's academical career at the University of London was an unusually brilliant one, and it was crowned by his winning the gold medal at the M.D. Examination ten years ago. After occupying several positions on the junior staff of St. Thomas's Hospital, he was appointed resident assistant physician there, but the state of his health compelled him to resign the post after he had occupied it only a year. It is but two years since he seriously resumed medical work, and he then devoted himself to the branch of anæsthetics, bringing to bear upon his practice all the force of a powerful and highly trained intellect, and the resources of a mechanical skill of a very high order. No one who discussed the subject with him could help being struck by the original way in which he regarded the various vexed questions of anæsthetics, and the acuteness and suggestiveness of his criticisms; and it may safely be said that had he lived even a little longer he would have thrown much fresh light upon many of the obscure problems of the subject. But Dr. Sheppard was not a man with one hobby. He touched life at many points, and his interests were numerous and varied. His knowledge of music and his marvellous powers of execution were the delight of many audiences, and there are few, we believe, who are so intimately acquainted with books and pictures as he was. Yet these are only, as it were, facts of a many-sided character, and even to those who had known him intimately for years some fresh phase of his character was ever and anon displaying itself. But in some things he never varied—in his kindness to his friends and his devotedness to their interests, and in his courtesy and considerateness to all with whom he came in contact. Everyone who knew him even slightly will feel that he has lost in him a personal friend, but to those who knew him best, and whose regard for him was consequently deepest, his death cannot be described as other than an irreparable loss.

F. E. MANBY, F.R.C.S. ENG., J.P.

WE regret to have to announce the death, on the 1st inst., at Guernsey, of Mr. Frederick Edward Manby of Wolverhampton, at the age of forty-six years. About eighteen months ago he suffered from an attack of influenza, from which he seems never to have thoroughly recovered. Lately he had been far from well, and on June 24th he journeyed to the Channel Islands for his health's sake. Unfortunately, however, whilst there he was again attacked with influenza, to which he succumbed, as above stated, on the 1st inst. The son of a surgeon, Mr. Manby was born at East Rudham, Norfolk, and educated at Lynn Grammar School and Epsom College. Having completed his medical studies at Guy's Hospital, he became a Fellow of the Royal College of Surgeons in 1870, having obtained the Apothecaries' licence in 1865. The deceased gentleman was placed on the Commission of the Peace for the borough a few months before his death. He was returned to the Town Council in 1879 for St. George's Ward, was mayor in 1888, and at the time of his death was deputy-mayor. Throughout his association with the Town Council he took an active part in all sanitary matters, including the Artisans' Dwellings scheme, the Infectious Diseases Hospital, and similar movements. As a member of the Sanitary Committee his medical knowledge was especially valuable. The Free Library was at all times the subject of his attention. Some years ago Mr. Manby occupied the position of medical officer of health for the borough during the severe small-pox epidemic. He was gazetted a brigade-surgeon in the Volunteers two years ago, and was subsequently presented at Court. In the local branch of the St. John Ambulance

Association he took great practical interest, and received the badge of the parent association. He was one of the founders of the Wolverhampton branch of the Society for the Prevention of Cruelty to Children, and assisted in the formation of the Wolverhampton Nursing Institution as a Jubilee memorial. Expressions of regret at the sad event have been general throughout the town, for the deceased gentleman's talents and affability had secured him a very wide circle of friends.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council of the College, held on Thursday, the 9th inst., the President announced the result of the election of members of the Council, held on the 2nd inst. Sir W. MacCormac took his seat on re-election, and Messrs. Thos. R. Jessop and W. Rivington were introduced to the Council, and took their seats on election.

The minutes of the Extraordinary Meeting of June 25th were read and confirmed.

The report of the Laboratories Committee was read and accepted, and it was agreed that a Crematorium be constructed in the basement of the Laboratories, at a cost not exceeding £150, for the purpose of destroying the refuse accumulating from the Laboratories.

The following Fellows and Members were elected to the respective offices of Professor and Lecturer—viz.:

Professors of Surgery and Pathology.—Messrs. Butlin, Watson Cheyne, Mansell Moullin, and Robinson.

Professors of Comparative Anatomy and Physiology &c.—Messrs. B. T. Lowne, C. B. Plowright, and Charles Stewart.

Lecturer on Anatomy and Physiology (Arris and Gale).—Mr. John Rose Bradford.

Erasmus Wilson Lecturer.—Mr. Jonathan Hutchinson, junior.

It was agreed that a meeting of Fellows and Members be summoned as soon as the Council has a definite statement to put before them with regard to the New University for London.

In reply to a letter of the 6th inst. from Mr. H. Percy Dunn, communicating resolutions adopted by the Association of Fellows, the Secretary was instructed to say that the Council, whilst desirous of having a meeting of Fellows independently of the Members, considered that such should not be held pending the trial of Steele *v.* Savory.

The President reported the result of the conference with King's and University Colleges respecting the proposed Charter of the Albert University.

The Royal Colleges have decided to reaffirm the position which they have taken up with regard to the proposed University. They ask for the entire control of the medical curriculum and examinations, and it is understood that the representatives of the medical schools have agreed to support them in this attitude, provided certain changes are made in the clauses of the Charter admitting a representative from each school to a seat in the Senate, and other advantages.

The Council then proceeded to the election of President, and Mr. Thomas Bryant was re-elected. Mr. Hulke and Mr. Hill were elected Vice-presidents.

The next ordinary meeting of the Council will be held on July 30th.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board at a meeting of the Examiners on the 6th inst.:—

Anatomy and Physiology.—Henry E. Firth, Raphael A. Lewty, Edmund Welch, and Lancelot B. Todd, students of Yorkshire College, Leeds; John A. Eatock and John R. Ambler, of University College, Liverpool; Edward A. Purcell and Alfred W. Joynson, of Dublin; Frederic E. Peake, of Bristol Medical School; Archibald Young, of Sheffield Medical School; G. Aubrey Jelly, Francis W. Hartley, and Arthur P. Shaw, of Owens College, Manchester; Herbert M. Pentreath, of St. Bartholomew's Hospital; Nathaniel H. Hobart, of Cambridge University; and William T. Pugh, of Middlesex Hospital.

Anatomy only.—Alfred R. Hitchfield, of Guy's Hospital; Gerald A. Child, of Oxford University; Lockhart Lowe and Karl F. Cherry, of Queen's College, Birmingham; Ernest Moore, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; Isaac Watts, of Owens College, Manchester; John D. McD. Newlands and Francis W. Bailey, of University College; Edward Brabazon, of Dublin; Chas. J. P. T. Gibbons, of London Hospital; and Maurice C. Barber, of Bristol Medical School.

Passed on the 7th inst.:—

Anatomy and Physiology.—John W. Haigh and Henry Stonehouse, of Yorkshire College, Leeds: A. D. Roberts, Jas. Foster, and Bernard H. Woodyatt, of Owens College, Manchester; Arthur L. Reid, of St. Bartholomew's Hospital; Tom Longmore and Herbert G. Nichols, of Queen's College, Birmingham; Roger P. Wilson, of Liverpool; and James Watson, of Glasgow University.

Anatomy only.—Federico Uzumbado, of Guy's Hospital; Sydney C. Legge and George R. Northwood, of Queen's College, Birmingham; Francis R. Gibbs, Frederick A. Cooke, and Stephen Langton, of St. Mary's Hospital; Arthur David Griffiths, of Bristol Medical School; Bruce E. Edge, Harry W. Pritchard, and Richmond Goulden, of Owens College, Manchester; John Challice, of London Hospital; T. Dobson Bell and George W. Gostling, of University College; and James E. Gordon, of Glasgow University.

Physiology only.—Leonard Bostock and John Tait, of Owens College, Manchester; Arthur P. Woollright and William Wyllie, of St. Bartholomew's Hospital; Percy Slack, of Sheffield Medical School; John Tilsley and Walter A. A. P. Price, of Bristol Medical School; William H. Cooper, of Bristol and Mr. Cooke's School of Anatomy and Physiology; Ambrose H. Palmer and Thomas Astbury, of Queen's College, Birmingham; Richard S. Olver, of King's College; Charles H. Nicholson, of Middlesex Hospital; and H. G. Larnder, of St. Mary's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed the recent Primary Examinations in the subjects indicated:—

Anatomy and Physiology.—N. B. Baker, St. Bartholomew's Hospital; A. H. A. Boyle, E. T. Dodson, H. M. Greene, A. Harding, A. M. Weir, and W. A. Westlake, Royal Free Hospital; H. E. Davis, St. Thomas's Hospital; H. Exell, Sheffield Medical School; R. J. Farman, Charing-cross Hospital; P. D. Fothera, St. Mary's Hospital; L. F. C. Hughes, Yorkshire College, Leeds; and H. D. N. Mackenzie, Edinburgh University.

Anatomy.—W. F. Campbell, King's College; W. R. Fisher, London Hospital; T. Homer, Edinburgh University; and S. Langton, St. Mary's Hospital.

Physiology.—C. Bayley and F. H. Humphris, Edinburgh University; S. Foster and A. W. Robertson, St. Bartholomew's Hospital; J. Garner, D. F. Maunsell, and W. Ranson, St. Thomas's Hospital; J. B. Hodgson, Manchester and Glasgow; E. S. Johnson and G. C. Schultz, St. Mary's Hospital; M. Martin, Sheffield Medical School; G. W. Pauli, Bristol Medical School; A. J. Pollard, Yorkshire College, Leeds; and M. N. H. Roberts, Middlesex Hospital.

Chemistry, Materia Medica, Botany, and Pharmacy.—R. Crawford, Belfast; C. T. Green, Rukhmabai, and L. E. V. Saville, Royal Free Hospital; J. C. McWalter, Dublin; and G. E. H. Sargent, London Hospital.

Chemistry and Pharmacy.—E. Bentham, C. A. S. Fitter, M. Harmar, and K. M. Hunter, Royal Free Hospital; and G. Steel, Cambridge University.

Pharmacy.—L. M. Blake and E. L. Mitcheson, Royal Free Hospital; W. A. King, Charing-cross Hospital; and H. D. N. Mackenzie, Edinburgh University.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.—The sixty-ninth annual report just published shows that this Society fully maintains its useful function of affording help to those of its members or their widows and families who are in need of assistance. During the year sixteen annuitants received help from the Society, the yearly value of the grants ranging from £40 to £20; and the total sum expended in grants was £460. The invested funds now amount to £11,267. At the annual meeting Mr. H. M. Morgan of Lichfield was elected President; Sir James Sawyer and Dr. Savage, Treasurers; and Mr. W. F. Haslam, Secretary.

THE PORT (LONDON) SANITARY COMMITTEE.—The annual down river inspection of this Committee, accompanied by Dr. Collingridge, medical officer of health for the Port of London, took place last week. At Canvey Island they were received by the Vicar. The population of this little island has increased by seventy since the last census, and now numbers 326 souls. The general health is very satisfactory, attributed largely to the pure water (of which there is an abundant supply) drunk by nearly three-fourths of the inhabitants, from a well sunk by the Corporation. The sanitary condition of the island is excellent. On the way up river the Committee inspected the hospital, where there was a bad case of small-pox, taken from a ship coming from Buenos Ayres. The constant inspection established on the river is proving of great value in the detection and stopping the spread of disease and of infection.

POISONING BY TINNED SALMON.—An inquest was held touching the death of a boy aged twelve, who died from the effect of poisoning by eating tinned salmon, whilst five other persons are now suffering from the effects of the poison. The inquiry was adjourned for a fortnight with a view of having analyses made and of obtaining the fullest information.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—The Duke of Westminster, accompanied by the Duchess, will visit this hospital (Albany Memorial), in Queen-square, Bloomsbury, on Saturday, the 18th inst., to inaugurate the new surgical wing. It was hoped the building would have been fully completed by the day named; but the strike in the building trades has prevented this, and the opening ceremony, therefore, will be formal.

CARDIFF WATERWORKS SCHEME.—Quite recently members of the Cardiff Medical Society visited the works of the future water service of this town. Mr. J. A. B. Williams, the waterworks engineer for the Corporation, conducted the visitors over the great reservoir works at Taff Vawr, and generously proffered his hospitality on the occasion. The Medical Society was well represented, and most of the members of the committee were present. After inspecting the works, and at the conclusion of the luncheon, Dr. Edwards, on behalf of the Medical Society, offered thanks to Mr. Williams for his hospitality, and expressed his high appreciation of that gentleman's abilities as a waterworks engineer. He also paid a tribute to the Cardiff Corporation for undertaking an enterprise of such magnitude and importance.

BEQUESTS AND DONATIONS TO HOSPITALS.—Mr. Charles Etty, formerly of the Island of Java, but lately of Kingston-upon-Hull, bequeathed £100 to the Hull General Infirmary and £50 to the Victoria Children's Hospital, Hull.—Mr. Stephenson Clarke, late of West Croydon, bequeathed £1000 to the Croydon Hospital, and £2000 to St. Bartholomew's Hospital.—Miss Mary Bradford, late of Higher Broughton and Birkdale, bequeathed £5000 each to Owens College, Manchester, and the Northern Counties Hospital for Incurables, Ardwick-green; £2000 each to the Manchester Royal Infirmary and the St. Mary's Hospital and Dispensary for Diseases of Women and Children; and £1000 to the Clinical Hospital and Dispensary for Children, Park-place, Cheetham.—Smith's Charity (of Kensington) has sent a donation of £150 to the Royal Chest Hospital, City-road.—The late Mr. George Whitfield, of Hamsey House, near Lewes, bequeathed 200 guineas each to the Lewes Dispensary and Infirmary and the Sussex County Hospital, and 100 guineas to the Brighton Eye Infirmary.—The Goldsmiths' Livery Company has made grants of £25 to the Dental Hospital, London, £500 to King's College Hospital, and £50 to the North London Consumption Hospital.—The Fishmongers' Livery Company has voted 25 guineas to the Royal Sea-bathing Infirmary, Margate.—The Clothworkers' Livery Company has voted 100 guineas to the building fund of the London Hospital.—The Grocers' Livery Company has given £250 to the building fund of the Royal Free Hospital.—The late Mr. David Price (the Railway Commissioner) bequeathed £2000 each to the Metropolitan Hospital, the London Fever Hospital, the Royal Free Hospital, the London Hospital, the North London Consumption Hospital, the National Hospital for the Paralysed and Epileptic, the City of London Hospital for Diseases of the Chest, the Middlesex Hospital, the Royal Hospital for Incurables, the Free Cancer Hospital, the University College Hospital, the Royal London Ophthalmic Hospital, and the West-end Hospital for Diseases of the Nervous System and Paralysis and Epilepsy.—The late Mrs. Dawson, of Regent's Park, bequeathed £500 to the Alexandra Hospital for Children with Hip Disease, Queen-square.—Mr. Thos. Aitken, late of Fallowfield, near Manchester, bequeathed (free of legacy duty) £100 each to the following charities—namely: the Royal Infirmary and Dispensary, the Barnes Convalescent Home at Cheadle, the Royal Eye Hospital, the Southern Hospital for Diseases of Women and Children, the Institution for Diseases of the Ear, the Northern Counties Hospital for Incurables at Heaton Mersey, St. Mary's Hospital and Dispensary, and the Clinical Hospital for Women and Children, all of Manchester.—Mr. George Gay, late of Cotham Park, bequeathed £1000 to the Bristol Infirmary, and £500 to the Bristol Children's Hospital.

THE SANITARY INSTITUTE.—At an examination held for Inspectors of Nuisances at Newcastle-on-Tyne on June 26th and 27th, forty-three candidates presented themselves, of whom twenty-nine were certified to be competent, as regards their sanitary knowledge, to discharge the duties of Inspector of Nuisances.

LITERARY INTELLIGENCE.—A new candidate for the favour of the medical profession in the United States has just appeared under the title of the *Vis Medicatrix*, a bimonthly issued by the Iowa State Medical Society. It claims to be the only professional journal published in the State of Iowa.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—In consequence of the visit of the Emperor of Germany to the City and return of the procession by way of Victoria Embankment, it has been decided to postpone the written examination in Surgery from 2 o'clock P.M. to 4 o'clock P.M. (to-day) Friday, the 10th inst.

SICKNESS IN UPPER BURMAH.—Throughout Upper Burmah the present season is reported to have been exceptionally unhealthy. Of the garrison of Mansi, near the frontier of the Shan States, 50 per cent. have been on the sick list; but the health of the troops there has recently proved. Severe sickness still continues in the garrison of the jade mines. Surgeon Strickland, lately in medical charge, has left, and had arrived at Bhamo, sick.

FURLEY TESTIMONIAL DINNER.—A number of influential noblemen and gentlemen met at dinner on Tuesday, the 7th inst., at the Hôtel Métropole, to do honour to Mr. John Furley, who for the past twenty-two years has distinguished himself in ambulance work. At the dinner Mr. Furley was presented with an album containing the photographs and autographs of the subscribers to the testimonial.

DEVONSHIRE HOSPITAL.—Dr. Robertson F.R.C.P., presided at the half-yearly meeting of this hospital on Saturday, the 4th inst. The report was submitted, and stated that 176 patients were received during the half-year, under the powers of the governors of the Cotton Districts Convalescent Fund. It also states that the sum of £500 has been received by the hospital under the will of Mrs. Margaret Platt of Stalybridge, the sum of £200 under the will of Mr. Richard W. Hollon of York, and £50 under the will of Mr. John Nuttall of Newark. These legacies have been duly invested, and added to the financial power and stability of the hospital in the future. Two new life subscriptions have also been received during the half-year. The sum received as annual subscriptions during the half-year has been greater by £64 than that received during the same period of the preceding year, although the amount received through the recommendations of non-subscribers has been less. The other sources of income have been fairly maintained.

GENERAL PRACTITIONERS' UNION.—A meeting of the Executive Committee of the above Society was held on Friday the 3rd inst. Present: Mr. George Brown (chairman), Messrs. F. H. Alderson, M.D., T. R. Atkinson, Campbell Boyd, F. H. Corbyn, W. E. Dawson, and Hugh Woods, M.D. The Chairman reported that Mr. W. E. Dawson and himself gave evidence before the Lords' Committee on the Management of Hospitals &c. on Monday, June 29th, and read extracts from the evidence given, whereupon it was moved by Dr. Alderson, seconded by Dr. Hugh Woods, and resolved: "That the best thanks of this Committee, as representing the General Practitioners' Union, be given to the Chairman and to Mr. W. E. Dawson for their able and effective evidence before the Lords' Committee, and they would suggest that the same should be published in pamphlet form, and extensively circulated amongst the profession in the metropolis.—A meeting of members of the General Practitioners' Union was held in the Council Chamber, Exeter Hall, on the 7th inst., Mr. George Brown presiding. Certain resolutions were considered respecting the management of hospitals and dispensaries, and it was resolved to bring the resolutions before the notice of the Select Committee on Metropolitan Hospitals. Resolutions bearing on the question of the more adequate representation of general practitioners on the General Medical Council were also submitted to the meeting.

PRESENTATION.—Dr. H. N. Joynt was presented by the matron and nurses of the City Hospital, Birmingham, with a handsome dressing-case and cigarette-case on the occasion of his leaving to take up the duties of medical superintendent of the Bradford Fever Hospital.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on July 7th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	167	51	1	38	..	257	442
North-Western Hospital	108	38	..	10	1	163	443
Western "	129	23	..	9	1	162	224
South-Western "	139	16	..	15	1	171	340
South-Eastern "	131	7	..	11	4	153	462
Northern "	158	16	..	..	..	174	480
Totals	832	151	1	89	7	1080	2391

SMALL-POX.—*Atlas* hospital ship, 4.

MEDICAL NOTES IN PARLIAMENT.

The Report on Vivisection.

IN the House of Commons on Thursday, Mr. Walter M'Laren asked the Secretary of State for the Home Department, with reference to the report of the Inspector of Vivisection, that he only knows of one case in which the operation of inoculation in the eye has been practised in this country, in that case he reports that the change in the eye was microscopic, and that the animal was quite free from pain, whether his attention has since been called to the Supplement to the 19th Annual Report of the Local Government Board, containing a report by Dr. Klein, showing that both last year and the year before he inoculated the eyes of many cats, and that in many cases the whole centre of the cat's cornea was transformed into a deep crater-like ulcer, and that these cats lived for about three weeks suffering from the disease; whether he will ask the Inspector why he reported that there was only one such case of inoculation in this country, that it was microscopic, and whether, in view of Dr. Klein's report, he still adheres to that statement; and whether he will take any steps to prevent these experiments being continued:—Mr. Matthews replied: The inspector reported to me that he had himself seen only one case of what is technically called inoculation of the interior chamber of the eye since he had been inspector. This operation is quite distinct from the application of injective material to the surface of the eye, which was the procedure in Dr. Klein's experiments. Moreover, those experiments were made before Dr. Poore was appointed inspector, and were performed not in this country, but in Hungary. The inspector adheres absolutely to the statement made by him, which was a correct reply to the specific question addressed to me on June 5th. I am informed that Dr. Klein's experiments as tending to prove that diphtheria may be communicated from cats to human beings are of first-rate importance for the prevention of a diseasewhich is on the increase. As I before stated, it is a condition of the licence under which they are performed that if severe pain be induced the animal shall be immediately killed under anæsthetics. I have no reason to believe that this condition is disregarded, and I do not propose to interfere with the lawful exercise by scientific men of methods of experimentation which may result in great benefit to the human race.

THE METROPOLITAN HOSPITALS INQUIRY.

Select Committee on Metropolitan Hospitals.

AT a meeting of this Committee on Saturday last, Mr. Henry C. Burdett gave evidence. Speaking generally, he expressed himself in favour of voluntary hospitals as against rate-supported hospitals. The hospitals which were provided by the rates had failed through the inefficiency of the local committees. They had not got public opinion behind them in the same way as the voluntary hospitals which are supported by members of the public.—Lord Monkswell: I should have thought the opinion of the Metropolitan Asylums Board would have been just as valuable as public opinion.—But in practice the effect is different. No one can have inspected the institutions and gone over them without seeing exactly what I mean at once.—Earl of Kimberley: Perhaps you will kindly tell us what are the means of judging of those hospitals which you have individually—I mean those which you were speaking of, the voluntary hospitals; you said that you had seen them or inspected them.—I have inspected, I think, every hospital in this country more than once.—Earl of Kimberley: And been through the hospitals?—Yes, I have been through the hospitals, and been through them at different times.—Earl of Kimberley: Do you think that going through a hospital really enables a person to form an opinion as to the real state of the institution?—Yes, if you understand hospital management.—Earl of Kimberley: Do not you think it is impossible to tell whether an institution is well managed unless you have the power of examining all the officers?—I do not think so; I think I could tell you that this institution is efficient, and that that one is relatively inefficient, from my experience as a hospital administrator.—In further reply to Lord Kimberley as to whether his opinion was that it was better to trust to chance inspection by people who may or may not have time to give it, the witness said, "On the whole, I should say that the present system has answered a great deal better than any system of paid inspectors could possibly do."—By Lord Thring: He would have the whole system of medical relief affiliated, so that they might be in touch one with the other, and then the leaven of the voluntary system and the competition of the voluntary system, when brought alongside of the rate-supported hospitals (because we must have a certain number of rate-supported hospitals; that goes without saying), would bring about the average efficiency and crispness in the administration which we ought to have everywhere.

BOOKS ETC. RECEIVED.

COOK, THOMAS, & SON, Ludgate-circus, London.
The Business of Travel: a Fifty Years' Record of Progress. By W. Fraser Rae. 1891. pp. 318.

LEWIS, H. K., Gower-street, London.
On Painful Menstruation. The Harveian Lectures, 1890. By Francis H. Champneys, M.D. Oxon., F.R.C.P. 1891. pp. 88.

LONGMANS & CO., London.
Thomas Sopwith, M.A., C.E., F.R.S., with Excerpts from his Diary of Fifty-seven Years. By Benjamin W. Richardson, M.D., LL.D., F.R.S. 1891. pp. 400. Price 6s.

SIMPKIN, MARSHALL, & Co., London and Edinburgh.
The Retrospect of Medicine. Edited by Jas. Braithwaite, M.D. Lond. Vol. CIII. January–June, 1891. pp. 430.

SMITH, ELDER, & Co., Waterloo-place, London.
Dictionary of National Biography. Edited by Sidney Lee. Vol. XXVII.: Hindmarsh—Hovenden. 1891. pp. 435.

WARDLEY, C. F., Buxton.
A Guide to the Use of the Buxton Mineral Waters. By W. H. Robertson, M.D. Twenty-fourth Edition. 1891. pp. 68.

The Diagnosis of Traumatic Lesions in the Cerebro-spinal Axis, and the Detection of Malingering referred to this Centre; by B. A. Watson, M.D. (Lea Brothers & Co., Philadelphia, 1891).—The new Winter Resort: Taormina, Sicily (Lake & Sison, London), 1891.—Forty Years a Doctor; by W. W. Parker, M.D., Richmond, Virginia (reprint from the Virginia Medical Monthly, June, 1891).—Die Chirurgische Behandlung des Kopfes; von Dr. A. Wolfler; Theil III. (August Hirschwald, Berlin, 1891).—Bibliographie der Klinischen Helminthologie; Heft I., Echinococcus Cysticus; von Medicinalrat Dr. J. Ch. Huber (J. E. Lehmann, München, 1891).—Piesse's Art of Perfumery; edited by C. H. Piesse; fifth edition (published by Piesse & Lubin, London, 1891).—Die Untersuchung des Auswurfs auf Tuberkelbacillen; von Dr. Med. Eugen Czaplewski (Gustav Fischer, Jena, 1891).—The Dangers of Hypnotism; by St. Clair Thomson, M.D. Lond. (reprinted from the Westminster Review, Dec. 1890).—Neue Beitrage zur Frage des Impfschutzes; Zweite Beobachtungs-Serie, 1887–88; referat an den X. Internationalen Medicinischen Congress, Berlin, 1890; von Josef Körösi (Puttkammer & Mühlbrecht, Berlin, 1891).—The Musings of a Medical, No. 1 (James Thin, Edinburgh); price 1s.—A Plea for the Scientific Study of Insanity; by J. Batty Tuke, M.D., F.R.C.P. Edin. (Young J. Pentland, Edinburgh and London, 1891).—State Board of Health, Massachusetts, 1887–1890 and 1888–1890; Parts I. and II., Reports on Water-supply and Sewerage (Wright and Potter, Boston).—Harvard Medical School, 1890; Medical Publications, Vol. II.—Hints on Sanitary Fittings and their Application; by R. M. Wharam (H. & W. Brown, Fulham-road, London, 1891).—Hypnotic Suggestion; by Augustus Nicoll, M.B. Edin. (H. Renshaw, Strand, London, 1891).—Ein Beitrag zur Statistik des acuten Gelenkrheumatismus: Inaugural Dissertation; von Dr. Jur. Joseph Dulberg (Paul Scheiner, Würzburg, 1891).—Hearth and Home; Out-door Games (Boy's Own Paper Supplement); Meadow Sweet (Summer Number of the Girl's Own Paper).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERTON, WM., M.R.C.P., F.R.C.S. Edin., has been reappointed Medical Officer for the Ormskirk Urban Sanitary District.

BARRITT, G. L., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Workhouse and the Spalding Eastern Sanitary District of the Spalding Union.

BROOKS, C., L.R.C.P., M.R.C.S., has been appointed House Physician to the Liverpool Northern Hospital, vice T. Cuming Askin, resigned.

DALGARNO, J. J. Y., M.B., C.M. Aberd., has been appointed Parochial Medical Officer, St. Nicholas, Aberdeen.

DICKINSON, FRANCES MAY, M.B. Lond., has been appointed Anæsthetist to the Alexandra Hospital for Children with Hip Disease, vice Willett, resigned.

FINDLAY, GEO., M.B., C.M. Aberd., has been appointed Medical Officer for the Bralles District of the Shipton-on-Stour Union.

GILL, JOHN, L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Guilsfield District of the Llanfyllin Union.

HARRISON, J. F., L.F.P.S., L.M. Glasg., has been appointed Medical Officer to the Independent Order of Oddfellows, Stockport District, vice Heginbotham.

HARTLEY, ALFRED, M.D. Edin., has been appointed Medical Officer for the Bulmer Sanitary District of the Malton Union.

HEATON, GEORGE, M.A., M.B. Oxon., F.R.C.S., has been appointed Assistant Surgeon to the General Hospital, Birmingham, vice G. H. Barling.

HOPSON, MONTAGU F., L.D.S. Eng., has been appointed Dental House Surgeon at Guy's Hospital.

HUTCHEON, JOHN WATSON, M.B., C.M., D.P.H., has been appointed Medical Officer to the Parochial Board of St. Nicholas, Aberdeen.

LOWNDS, H. A., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the East Sanitary District of the Doncaster Union.

PALMER, S. J., M.B. Durh., M.R.C.S., has been appointed Assistant House Surgeon to the Liverpool Northern Hospital, vice C. Brooks.

PLUMMER, SELBY W., M.B., B.S. Dunelm, has been appointed House Surgeon to the County Hospital, Durham, vice Pogson, resigned.

ROBOTHAM, J. H., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Newton-on-Trent Sanitary District of the Gainsborough Union.

SIMPSON, FRANCIS O., L.R.C.P., M.R.C.S., has been appointed Third Assistant Medical Officer to the Hants County Asylum, Knowle, Fareham.

STANFIELD, WM., M.D. St. And., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for Lees, Oldham.

VERRALL, THOS. J., L.R.C.P. Lond., M.R.C.S., has been appointed Surgeon to the Sussex County Hospital, vice Humphrey.

WALKER, H. U., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer and Public Vaccinator for the Carlton Sanitary District of the Worksop Union.

WATT, JAS. P., M.A. Aberd., D.P.H., R.C.S. Edin., has been appointed Medical Officer of Health for the County of Aberdeenshire.

WILLOUGHBY, EDWARD F., M.D., D.P.H. Lond. and Camb., has been appointed Medical Officer to the Mansion House Council on the Dwellings of the Poor, vice L. Parkes, M.D., resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Junior House Surgeon. Salary £50, with board and lodging.

BOOTLE BOROUGH HOSPITAL.—Assistant House Surgeon and Dispenser. Salary £40 per annum, with board, lodging, washing, &c.

BIRMINGHAM GENERAL DISPENSARY.—Five Resident Surgeons, Salary £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance.

BRADFORD INFIRMARY AND DISPENSARY.—Dispensary Surgeon. Salary £100 per annum, with board.

CHILDREN'S HOSPITAL AND DISPENSARY, Manchester.—Medical Officer. Salary £180 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Resident Assistant House Surgeon for six months. Salary £10 for the first six months. If re-elected, £25 for the second six months. Separate apartments, board, and washing provided.

GENERAL HOSPITAL, Nottingham. — Senior Resident Medical Officer for two years. Salary £120 for the first year, with an addition of £10 a year up to £150, with board, residence, and washing.

GENERAL HOSPITAL, Nottingham. — Junior Resident Medical Officer for two years. Salary £100 for the first year, with an addition of £10 a year up to £120, with board, residence, and washing.

GENERAL HOSPITAL, Birmingham.—Three Assistant House Surgeons for six months. No salaries, but residence, board, and washing provided.

HAMPSTEAD PROVIDENT DISPENSARY, New-end, N.W.—Medical Officer. (Apply to the Secretary, 73, High-street, Hampstead.)

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury.—Assistant Physician.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury.—Two Casualty Medical Officers for one year.

HOSPITAL FOR WOMEN, Soho-square, London.—House Physician for six months. Salary £30, with board &c.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House Surgeon for two years. Salary £60 per annum, rising to £70, with board and residence. (Apply to the Secretary, 74, King-street, South Shields.)

KENSINGTON DISPENSARY.—Resident Medical Officer. Salary £125 per annum, with furnished apartments, coal, gas, and attendance. (Apply to the Honorary Secretary, 7, Stanford-road, Kensington-court, W.)

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer to act as Pathologist. Salary £200 per annum, with furnished apartments, board, attendance, and washing.

LUNATIC HOSPITAL, The Coppice, Nottingham. — Assistant Medical Officer. Salary £100 a year, with board, apartments, attendance, and washing.

METROPOLITAN ASYLUMS BOARD.—Clinical Assistant for three months at the South-Eastern Fever Hospital, New-cross-road, S.E. Board, furnished apartments, and washing. (Apply to the Medical Superintendent at the Hospital.)

METROPOLITAN DAIRYMEN'S SOCIETY.—Consulting Sanitary Medical Officer. (Apply to the Secretary, 191, Fleet-street, E.C.)

MIDDLESEX HOSPITAL, W.—Second Chloroformist.

NEWARK HOSPITAL AND DISPENSARY.—House Surgeon. Salary £80 per annum.

NORFOLK AND NORWICH HOSPITAL. — Assistant to the House Surgeon for six months. Board, lodging, and washing provided.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments and board.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Junior House Surgeon. Salary £100, with apartments and rations (exclusive of wines, spirits, and washing).

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. No salary. Board, lodging, and washing provided.

SHEFFIELD GENERAL INFIRMARY.—House Surgeon. Salary £120 per annum, with board, lodging, and washing.

SHEFFIELD GENERAL INFIRMARY.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

SHEFFIELD SCHOOL OF MEDICINE.—Tutor to take charge of Dissecting-room and hold Classes in Anatomy and Physiology. Salary £100 per annum.

ST. MARK'S HOSPITAL FOR FISTULA &c., City-road, London, E.C.—House Surgeon for twelve months. Salary £50, with board and residence in the Hospital.

ST. SAVIOUR'S UNION, Surrey.—Medical Superintendent at the Infirmary at East Dulwich-grove, S.E. Remuneration at the rate of £400 per annum, with unfurnished house, coals, gas, and water. (Apply to Mr. Jones, Clerk's Offices, John-street West, Blackfriars-road, S.E.)

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-on-Tyne.—Demonstrator of Anatomy. Salary £100 per annum.

UNIVERSITY COLLEGE, London.—Assistant Physician.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W. — Junior House Surgeon. Salary £50 per annum, with board and apartments.

WOLVERHAMPTON EYE INFIRMARY.—House Surgeon for twelve months. Rooms, with board and washing, provided; also honorarium of £25 at the expiration of the year.

Births, Marriages, and Deaths.

BIRTHS.

CLARKE.—On July 3rd, at The Manor House, Newbury, Berks, the wife of W. Jenner Clarke, M.R.C.S., of a son.

COLE.—On July 6th, at St. Tudy, Cornwall, the wife of W. B. N. Cole, M.D., of a son, prematurely; survived its birth two hours.

DAUNT.—On July 3rd, at Pierpoint, Lindfield, the wife of Dr. Elliot Daunt of a daughter.

HAYNES.—On July 1st, at The Rise, Stansted, Essex, the wife of Dr. W. F. Haynes of a daughter.

HELSHAM.—On July 5th, at Keyworth, near Nottingham, the wife of Hugh Paul Helsham, L.R.C.P., M.R.C.S., of a son.

MYDDLETON-GAVEY.—On July 3rd, at Brooks Hall, Ipswich, the wife of E. H. Myddleton-Gavey, M.R.C.S., of a daughter.

ORD.—On July 2nd, at Halesowen, Worcestershire, the wife of W. Theophilus Ord, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

MARRIAGES.

CARTER—MACLEOD.—On July 3rd, at Edinburgh, Robert J. Carter, M.B. Lond., D.P.H. Eng., of St. John's-wood-terrace, Regent's-park, London, N.W., to Isabelle Marie (Belle) Macleod.

COSENS—HINKS.—On July 1st, at the Parish Church, Leamington, by the Right Rev. the Lord Bishop of Worcester, assisted by the Rev. Carns-Wilson, Vicar of St. Mark's, Milverton, and the Rev. E. A. Cosens (brother of the bridegroom), Vicar of Holly Hall, Dudley, William Burrough Cosens, M.R.C.S., L.R.C.P. Eng., third son of the Rev. Dr. Cosens, Vicar of Dudley, to Edith Annie, eldest daughter of Joseph Hinks, J.P., of Milverton Lawn, Leamington.

DUNLOP—GUNNING.—On June 30th, at Derrylovan Church, Cookstown, Shuldham Henry Dunlop, M.D., eldest son of Archibald Dunlop, M.D., of Holywood, to May, eldest daughter of the late W. A. Gunning, Esq., of Cookstown.

LUSH—ANDERSON.—On July 7th, at Trinity Presbyterian Church, Hampstead, by the Rev. James R. Gillies, M.A., assisted by the Rev. F. B. Meyer, B.A., of Regent's-park Chapel, Percy John Frederick Lush, M.A., M.B., B.Ch. Oxon., M.R.C.S., of 8, Fitzjohn's-avenue, Hampstead, youngest son of the late Right Honourable Lord Justice Lush, to Lydia, second daughter of the late W. D. Anderson, Esq., of The Ferns, Frognal, Hampstead.

MAGGS—BRISTOWE.—On July 1st, at St. Stephen's, South Dulwich, William Adolphus Maggs, L.R.C.P., M.R.C.S., of Hanover-square, to Alice Maude, second daughter of R. H. Bristowe, of Wavertree, Sydenham-hill.

MOURILYAN—BINNY.—On June 30th, at St. Jude's, South Kensington, Edward Pain Mourilyan, M.B. Lond., R.N., only son of Captain Mourilyan, R.N., of St. George's Lodge, Deal, to Mabel Lilian, younger daughter of Mrs. John Binny, of Sydney, New South Wales.

DEATHS.

FOGERTY.—On June 29th, at George-street, Limerick, Henry A. Fogerty, M.D., Surgeon-Major, Medical Staff, aged 41.

MANBY.—On July 1st, at Guernsey, Frederic Edward Manby, F.R.C.S. Eng., of Wolverhampton, aged 46 years, eldest son of the late Frederic Manby, of East Rudham, Norfolk.

NEDWILL.—On July 3rd, at Christchurch, New Zealand, Mary Lilian Nedwill, aged 19, second daughter of Courtney Nedwill, M.D.

STONE.—On Sunday, July 5th, 1891, at 24, Geraldine-road, Wandsworth, S.W., William Henry Stone, Esq., F.R.C.P., Consulting Physician to St. Thomas's Hospital, only son of the late Rev. Wm. Stone, Canon of Canterbury, on his 61st birthday.

WHYTE.—On July 2nd, in London, Nicholas C. Whyte, M.R.C.S., Coroner for the City of Dublin.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 9th, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 3	29·90	S.W.	64	57	119	71	56	..	Cloudy
,, 4	30·00	S.W.	62	56	117	73	53	·10	Cloudy
,, 5	30·05	S.W.	63	57	100	66	54	·21	Cloudy
,, 6	29·82	S.W.	62	59	101	70	60	·01	Cloudy
,, 7	29·70	W.	61	54	117	66	54	·23	Cloudy
,, 8	29·69	W.	60	56	113	71	54	·71	Cloudy
,, 9	29·99	N.	61	57	117	68	54	·72	Cloudy

Medical Diary for the ensuing Week.

Monday, July 13.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

ST. PETER'S HOSPITAL FOR STONE.—4 P.M. Mr. Reginald Harrison: Injuries of the Urethra and their Effects.

Tuesday, July 14.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, July 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, July 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, July 17.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 18.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

VACCINATION AMONG ZULUS.

ACCORDING to a paragraph in the *Liverpool Daily Post* the mothers of Zulu children are grateful for the blessing of compulsory vaccination in a way that would put Leicester mothers to shame. The writer describes how he saw in one small settlement eighty or ninety mothers assembled for the enforced vaccination of children, although a tax of 6*d.* per head is levied.

Mr. M. Blok.—We cannot say there is illegality in the position of the medical man in such an institution. But there is apparently a great want of dignity in it. We are not informed of the rules and regulations of the dispensary.

An Inquirer is referred to our last Students' Number, published Sept. 6th, which contains a list of medical tutors.

"INFLUENZA."

To the Editors of THE LANCET.

SIRS,—Some of your correspondents have made passing allusion to the fact that the present nomenclature has descended to us from a time when "the influence of the stars" counted for much, and the equally mysterious bacillus, as far as knowledge of his existence is concerned, was not. Although it does not appear to have hitherto attracted any notice, it seems worthy of record amongst medical curiosities that the epidemic prevalence of influenza has been co-existent with that position of Saturn in Leo which was of such sinister portent to the old astrologers, and which he will occupy for some little time yet. In the well-known address of Saturn to Venus, Chaucer makes the former say:

"I do vengeaunce and pleine correction
While I dwell in the sign of the Leon.
* * * * * *
My loking is the father of pestilence."

I am, Sirs, your obedient servant,
WILLIAM MUSSEN YOUNG, M.D.

Melton, Woodbridge, Suffolk, July 7th, 1891.

Dr. Plomley.—We refer our correspondent to section 3 of the Dentists' Act, which preserves the right of registered medical practitioners to use the title of "dentist" intact.

Locum Tenens.—The fees should be divided between the principal and the locum tenens.

Mr. G. Browne (Dublin).—The communication is incomprehensible.

CONSULTANTS AND GENERAL PRACTITIONERS.

To the Editors of THE LANCET.

SIRS,—Now that there is so much discussion as to the best method of dealing with the question of hospital abuse, the following facts may be of value as showing how certain members of the profession aid in pauperising the community. For obvious reasons I give no names. A surgeon connected with a London hospital has an estate in this neighbourhood, to which he adjourns for rest and recreation from Saturday to Monday each week—his idea of recreation being to see and give advice gratis to all comers. I have only lately heard of this through a patient of mine who was one of his gratis patients, though, being a well-to-do farmer, he could well have afforded to go to London and pay this gentleman his just fee at his consulting-room. Since hearing of the first case several others, equally flagrant, have come to my knowledge.

I am, Sirs, yours obediently,
July 7th, 1891. COUNTRY G.P.

FUNGICIDE DRESSINGS FOR POTATO DISEASE.

LAST week, at the Albert Model Farm at Glasnevin, an illustration of the method of treating the potato plant with fungicide dressings was shown, a short lecture having previously been given as to the nature of the disease, its propagation, and an account of some of the means employed for its prevention or mitigation. The dressings included sulphate of copper, sulphate of iron, and a powder called Bichon's "anti-potato" disease. The sulphate of copper dressing is composed of sulphate of copper, quicklime, and water, and the sulphate of iron is also mixed with quicklime and water. These remedies are comparatively inexpensive, and have already given favourable results.

Medicus.—The thing is done by consultants every day in London—i.e., they see patients independently of their ordinary medical attendants, and without their knowledge. The consultants who refuse to do so do honour to their class. A patient who declines to give the name of the consultant, so that he may be communicated with in regard to new symptoms &c., is not worthy to be attended, and we entirely approve of our correspondent's action in declining to prescribe for her.

Dr. Malcolm (London).—Very soon.

S. F. J.—The terms are too low.

CONCAVE LARYNGEAL MIRRORS.

To the Editors of THE LANCET.

SIRS,—Having been unable to find any mention of the use of concave laryngeal mirrors in laryngoscopy, and not being able to obtain them at the instrument maker's, I have recently had them ground for me of various focal lengths. The chief advantages to be derived from their use are (1) magnified size of the image, and (2) better focusing of light on structures below the vocal cords. The chief use of a magnified image of the larynx is the examination of details of structure and the condition of the mucous membrane. The image is magnified by about one-third of the diameter. The general view of the larynx and the movements of the vocal cords are quite as well seen with the plane mirror. The mirrors I have had made are of 5-, 7-, 8-, and 10-inch focal length respectively. Of these, the 5-inch is not of much practical use, as, owing to the necessarily oblique position in which the mirror is held, the reflection of the glottis is distorted and confused. The 7- and 8-inch mirrors are the most useful—the former for a shallow, the latter for a deep larynx. With either of these a clear magnified image of the glottis and upper portion of the trachea is obtained; but the image of the lower portion of the trachea at its bifurcation is rather indistinct. In working with mirrors of short focal length it is advisable to use one eye only, as different portions of the larynx are reflected, and the two images cause confusion. The 10-inch mirror magnifies slightly, and gives a good light below the cords; and I think it would be advantageous if laryngeal mirrors were generally made slightly concave. The mirrors above described were made for me by Messrs. Mayer and Meltzer.

I am, Sirs, yours faithfully,

Finsbury-circus, July, 1891. RAYNER D. BATTEN, M.D., B.S.Lond.

Mr. G. C. Hamilton.—The Society for Relief of Widows and Orphans of Medical Men, 20, Hanover-square, W.

Mr. A. H. Baines.—From one to two guineas, the exact sum being determined by the usual visiting fee.

Mr. J. Broer.—Dengue is a tropical disease. It has never appeared in this country.

B.—We cannot recur to this matter.

APYREXIAL PNEUMONIA.

To the Editors of THE LANCET.

SIRS,—I send you the following account of a case of pneumonia, thinking it might be of interest to some of your many readers.

May 20th: A boy aged twelve. Not seeing this boy at muster, I inquired for him, and was told he was ill, and had been for some few days. When I saw him he was lying in his hammock, breathing very rapidly, and complaining of feeling very weak, of pain in his chest, and slight cough. Pulse small and rapid. On examining the chest I found the whole of the inferior lobe on the right side, and about two-thirds of that on the left, solid. Temperature at 11 A.M., 98·2°; 4 P.M., 98·4°; 10 P.M., 98·4°.—23rd: Adventitious sounds commencing to clear up. During the whole of the patient's illness there had been no rise of temperature, which was taken by myself three times each day—viz., at 10 A.M., 4 P.M., and 9 P.M. As far as I know, this case is quite unique, that with such extensive lung trouble there should have been no rise of temperature.—31st: Adventitious sounds quite cleared up. Patient well and about again. I may add that Dr. Oliver (of this service) saw this case repeatedly with me.—I am, Sirs, yours obediently,

P. & O. s.s. *Arcadia*, Colombo, June 10th, 1891. ANDERSON SMITH.

"CLIMATE OF THE WEST INDIES."

To the Editors of THE LANCET.

SIRS,—I have lately returned from a trip round the West Indies; and if your correspondent, "Intending Missionary," whose letter appeared in your issue of the 27th ult., will communicate with me, I may be able to give him some useful information.

I am, Sirs, yours truly,

County Asylum, Gloucester, July 7th, 1891. T. HURST CRADDOCK.

PRESENTATION TO DR. MUSSEN, OF GLENAVY.

DR. MUSSEN, J.P., of Glenavy, after twenty-five years' practice, has been appointed a magistrate by the Lord Chancellor. What must have been even more gratifying to him was the gathering of many friends to applaud the action of the Lord Chancellor, and to deliver to Dr. Mussen an address expressive of their high respect for his character and conduct, accompanied with a presentation of silver plate, a horse, harness, waggonette, and pianoforte. He was naturally touched with this action of his neighbours, which it is very pleasant to us to record. It was the more pleasant and noteworthy as the gathering of Dr. Mussen's friends included men of all creeds and classes. It is another proof that in Ireland as in other places, men even of pronounced views, as we believe Dr. Mussen to be, may so bear themselves in the community in which they live as to conciliate opponents and promote the union of classes.

J. B.—The medical man is not acting fraternally in this case. He can enforce payment. But law is a poor substitute for professional courtesy and consideration. Our correspondent should remonstrate.

THE CONTAGIOUS DISEASES ACTS.

To the Editors of THE LANCET.

SIRS,—Your article in the current number of THE LANCET, which purports to be a synopsis of part of the paper recently read by Dr. Lawson before the Royal Statistical Society, contains an apparent inconsistency which calls for explanation. In the second column, on page 1450, a table is given which shows that, according to the Registrar-General's returns during the time that the Contagious Diseases Acts were in force, there was a decrease in the number of deaths ascribed to syphilis among the civil population in certain areas of the country in which are situated towns that were under the Acts. This decrease of deaths is claimed (in the text) as a proof that the beneficial effects of the Acts had not been confined to the towns in which they were in force, but had influenced this special death-rate in an enormously wider area. In the table which precedes this, figures are given which show that during the last twelve years that the Acts were in force every form of venereal disease had increased in both the army and navy. If the figures in the last-mentioned table are correct, it seems inconsistent to ascribe a *decrease* in a certain class of deaths, among a population only very indirectly affected by it, to legislation that has been attended by a marked *increase* in the ratio of disease causing such deaths among the persons directly influenced by it.

I am, Sirs, yours obediently,

July 1st, 1891. ENQUIRER.

*** The contention of "Enquirer" is due to a want of a clear apprehension of the bearings of the case. In the quinquennium 1865–69 the incidence of syphilis, as shown by the deaths among the civil population, was practically the same among the inhabitants of the second and fifth divisions of the Registrar-General and those of the third, fourth, and sixth divisions, which bound them on the north—viz., 68 per 1000 in the former, and 67 per 1000 in the latter; and it was to be assumed that the incidence of the disease in both would vary in the one much as it did in the other, as it has done in the remaining division, unless some factor were introduced sufficient to disturb that regularity. Now, in the following quinquenniads, 1870–74 and 1875–79, the mortality from syphilis in the two southern divisions fell to 62 and 60 per 1000, while in the three adjacent divisions the ratios rose to 72 and 77 per 1000. Had these ratios been experienced in the southern divisions, the deaths would have amounted to 294 annually, instead of 252 in 1870–74, and to 328 instead of 255 in 1875–79. Three-fourths of the mortality from syphilis in civil life occurs in children under one year of age, and their liability to syphilis depends on the state of their parents' health within the previous two years, and anything which limits syphilis among them will reduce the mortality from this cause among their offspring. The operation of the Contagious Diseases Acts was obviously the cause of the reduction of the frequency of the disease among adults in the southern division while they were in operation; and, as many such persons live in the country, at a distance from the locality where they contracted their diseases, the mortality there among the children will be much diminished, as the figures above show, and will influence the deaths much beyond the spot where the disease was originally contracted. "Enquirer" deems it inconsistent to ascribe a decrease in a certain class of deaths among a population only very indirectly affected by it to legislation that has been attended by a marked *increase* in the ratio of diseases causing such deaths among persons directly influenced by it. The inconsistency, however, lies with himself. The frequency of syphilis in the class he refers to was very closely connected with the operation of the Acts, and the increase among the troops occurred only when the epidemic incidence was very strong and increasing over the country, and even then acquired force at the stations under the Acts only as the preventive measures imposed were gradually removed, as he must be quite aware.—ED. L.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Battan, London; Mr. Brock, London; Mr. Bridgeford, London; Mr. W. H. Brown, Leeds; Mr. C. Birchall, Liverpool; Messrs. Burroughs and Wellcome, London; Dr. Browning, Brooklyn; Mr. Beresford, Upper Holloway; Mr. Browne, London; Mr. Butler, Derby; Mr. Bartlett, Brixham; Dr. Ball, London; Dr. Collie, Catford; Mr. Cocking, Sheffield; Mr. C. G. Campbell, Saddleworth; Messrs. Crossley, Moir, and Co., London; Mr. Coghill, Birmingham; Mr. J. B. Curgenven, Teddington; Mr. Coleman, Cardiff; Mr. Collins, Norwich; Mr. T. H. Craddock, Gloucester; Mr. Cardew, London; Mr. Cory, Bournemouth; Dr. Clement Dukes, Rugby; Mr. Dove, London; Mr. Dowell, London; Mr. Dawson, Castlegate; Dr. Fleming, Edinburgh; Mr. M. Forster, Worcester; Mr. Foulerton, Chatham; Mr. Fletcher, Ormskirk; Mr. Green, London; Dr. Gilbert, Eastbourne; Dr. J. A. Gibson; Dr. Horrocks; Mr. Hayrock, Welwyn; Mr. Hyde, Buxton; Mr. Holmes, Derby; Mr. Horrocks, Bradford; Mr. Harrison, Sheffield; Rev. F. K. Harford, London; Mr. Hamilton, Manor-park; Messrs. Heilgers and Co., London; Mr. Hutchinson, Newmarket; Dr. Hardwicke, Sheffield; Dr. Illingworth, Clayton; Mr. Jessop, Leeds; Mr. Jenkings, London; Messrs. Keene and Ashwell, London; Mr. Keely, Nottingham; Mr. Keary, Preston; Mr. Little, London; Messrs. Leader and Sons, Sheffield; Dr. Lanphear, Kansas City; Mr. Mansell Moullin, London; Dr. Malcolm, London; Mr. MacCormac, York; Dr. C. Munro, Paisley; Mr. McAdam, Edinburgh; Dr. Morrison, Glasgow; Mr. Mosse, London; Mme. Osterberg, London; Messrs. Orridge and Co., London; Mr. Pennington, Ulverstone; Messrs. Potter and Sacker, London; Dr. Robson, Newcastle-on-Tyne Mr. Rollason, West Bromwich; Mr. Rainbin, Saxilby; Mr. Richardson, New Swindon; Dr. H. Snow; Mr. Stocker, London; Dr. W. Squire; Messrs. J. Steen and Co., Wolverhampton; Mr. Sawtell, Woodstock; Messrs. Seabury and Johnson, London; Mr. Anderson Smith, Colombo; Messrs. G. and G. Stern, London; Mr. Smith, Brighton; Messrs. Street and Co., London; Mr. Stiven, Dundee; Mr. Tossell, London; Dr. Tate, Nottingham; Dr. C. H. Wade, Chudleigh; Messrs. Wood and Co., New York, Dr. Watson, Newbury; Mr. Taberner, Wigan; Messrs. Watson and Watson, London; Mrs. Worth, Bournemouth; Messrs. Waterlow and Son, London; Dr. D. Walsh, Birmingham; Messrs. J. Walker and Co., London; Mr. Wildy, London; Dr. Wheaton, London; Dr. Warlomont, Bruxelles; Mr. Woolley, Nottingham; Col. Young, London; Dr. Young, Woodbridge; Nemo; G.; Medicus; C. E. J.; Old King Cole; S. F. J.; Philandros; Sigma, London; D. E. P., London; An Inquirer; S. G. G., London; Certainty, London; Secretary, Derby Infirmary; Secretary, Hospital for Sick Children, Manchester; The Clerk, Bootle Hospital; G. P., London; L. W. K., London; Newark Hospital; Surgery, Plaistow; West-end, London; Secretary, Bradford Infirmary; M., Southport; Dunelm, London; Medical Officer, City Hospital for Infectious Diseases, Newcastle-on-Tyne; British and Colonial Druggist; Royal Infirmary, Manchester; Secretary, Halifax Infirmary; Secretary, Royal Albert Hospital, Devonport; Radcliffe Infirmary, Oxford; Secretary, General Infirmary, Gloucester; C., North Kensington; West End School of Massage, London; Country G.P.

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NEWSPAPERS.—*Naval and Military Record (Plymouth), The Newspaper, Western Morning News, Leicester Mercury, Belfast Morning News, Northern Whig, Sheffield and Rotherham Independent, Birmingham Post, Dundee Advertiser, Manchester Guardian, Worcestershire Echo, Cambridge Chronicle, North British Daily Mail, Sussex Daily News, Liverpool Courier, South Australian Register, Irish Times, Scotsman, Leeds Mercury, Yorkshire Post, Liverpool Daily Post, Bristol Mercury, City Press, Scottish Leader, Local Government Chronicle, West Middlesex Standard, Insurance Record, Surrey Advertiser, Mining Journal, Windsor and Eton Express, Weekly Free Press and Aberdeen Herald, Broad Arrow, Sunday Times, Metropolitan, Spectator, Chemist and Druggist, Builder, Law Journal, Pharmaceutical Journal, Reading Mercury, Architect, Saturday Review, Hertfordshire Mercury, West Middlesex Advertiser, Willesden Herald, Kent County Standard, La Temps (Paris), Bath Chronicle, Newcastle Leader, Windsor and Eton Gazette, Cape Times, Norfolk Daily Standard, Public Opinion, Whitehaven News, Coventry Standard, Sidney Mail, Hampshire Telegraph, Blackpool Gazette, Clifton Chronicle, Shropshire Guardian, Nottingham Daily Guardian, Jamaica Post, &c.*, have been received.

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